```
September 30, 2005, 13:30:51; Search time 20.3248 Seconds (without alignments) 932.422 Million cell updates/sec
GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
                                                                                                                 OM protein - protein search, using sw model
                                                                                                                                                                         Run on:
```

US-09-492-971B-15\_COPY\_4\_52 275 1 QAQQMVQPQSPVAVSQSKPG......INQQWERTYLGNVLVCTCYG 49

score:

Title: Perfect :

Sequence:

Total number of hits satisfying chosen parameters: 2105692 segs, 386760381 residues Gapop 10.0 , Gapext 0.5 Minimum DB seq length: 0 Maximum DB seq length: 200000000 Searched:

**BLOSUM62** 

Scoring table:

2105692

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

geneseqp1980s:\* geneseqp1990s:\* geneseqp2000s:\* geneseqp2003as:\* geneseqp2003bs:\* geneseqp2004s:\* A\_Geneseq\_16Dec04:\* geneseqp2001s:\* geneseqp2002s:\* Database :

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

#### SUMMARIES

	non	Human fib	Fibronect	Human fib	Human fib	Human pro	Human fib	Human fib	Fibronect	Protein d	Human fib	Human cer	Fibronect	Human fib	Human pro	Human mal	Amino aci	Fibrinoge	Novel hum	Human fib	Human min	Human leu	Lung canc	BCU0770 p	Human myo	Human bla
	Description	Aay90281	Aay28914	Aar92778	Aau74674	Aae23651	Aap70373	Aar15468	Aag68182	Abu07486	Abr41106	Abr92078	Adb70378	Adb98726	Ade82522	Adj37157	Aaw63171	Aar60021	Abg22279	Aaw99595	Adp75952	Adp75957	Aab58210	Abr58303	Adq39403	Adr67316
œ.											-															
SUMMAKIES	ID	AAY90281	AAY28914	AAR92778	AAU74674	AAE23651	AAP70373	AAR15468	AAG68182	ABU07486	ABR41106	ABR92078	ADB70378	ADB98726	ADE82522	ADJ37157	AAW63171	AAR60021	ABG22279	AAW99595	ADP75952	ADP75957	AAB58210	ABR58303	ADQ39403	ADR67316
	DB	m	~	7	ហ	ហ	-	~	4	9	9	9	7	۲	7	œ	7	~	4	7	œ	œ	٣	9	æ	œ
	Query Match Length	259	720	2324	2324	2324	2327	2327	2328	2328	2328	2328	2328	2328	2328	2328	2386	2446	2474	2477	1179	1359	231	463	642	642
de	Query	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	6.86	98.9	98.5	98.5	98.5	98.5
	Score	275	275	275	275	275	275	275	275	275	275	275	275	275	275	275	275	275	275	275	272	272	271	271	271	271
	Result No.		7	e	4	S	9	7	8	6	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25

Ade17489 Amino aci Adr97658 Human fib Adq39409 Human myo Aav28901 Human myo		Human Human Human	Human Human Human Human		Ad192160 Fibronect Ado55175 Protein #
ADS17489 ADR97658 ADQ39409 AAY28901	ADQ39406 ABG22275 ADR66462 ADR66120	ABO01289 ADN95950 AAM38647	ABR40124 ADQ39412 AAM38646 AAM38649	ABR58335 ADP65196 ADG89560	ADL92160 ADO55175
000000	100 4 00 00	0004	0 8 4 4	9 7 8	ထထ
642 642 657 660	984 1173 2182 2182	2220 2220 2220	2266 2296 2330 2355	2355 2355 2355	2355
99 99 99 99 99 99 99 99 99 99 99 99 99	9 9 9 9 9 9 8 9 9 9 9 6 6 9	98 8.8 8.8 8.5 8.5	98 98 8.8 8.6 8.6 8.6 8.6 8.6 8.6 8.6 8.6 8.	98 98 8.8 8.5	98.5 98.5
271 271 271 271	271 271 271 271	271 271 271	271 271 271 271	271 271 271	271 271
25 28 28 29	3510	3 3 3 4 5 3 5 4 5	37 38 40	4 4 4 1 2 8	4 4 5 5

### ALIGNMENTS

RESULT 1

Human fibronectin protein sequence fragment. AAY90281 standard; protein; 259 AA. (first entry) 13-OCT-2000 AAY90281; AAY9028

Streptokinase; SK; hybrid plasminogen activator; fibrin binding region; plasminogen; human; fibronectin; thrombolytic therapy; cardiovascular disorder; fibronectin.

98IN-DE003825. 99EP-00310541. 23-DEC-1999; 24-DEC-1998; Homo sapiens EP1024192-A2 02-AUG-2000. 

Kumar R, Roy C, Rajogopal K, Nihalani D, Sundaram V; Sahni G, Yadav M;

(COUL ) CSIR COUNCIL SCI IND RES.

WPI; 2000-516032/47. N-PSDB; AAA37632. Hybrid streptokinase-fibrin binding domain polypeptides useful for thrombolytic therapy comprises a streptokinase fused with fibrin binding domains of human fibronectin.

Example 3; Fig 6; 58pp; English.

This sequence represents a human fibronectin fragment, containing fibrin binding domains. The invention relates to a hybrid plasminogen activator (PA) comprises a polypeptide fusion between streptokinase (SK), which are capable of plasminogen (FG) activation, and fibrin binding regions of under the procession, which are from fibrin binding domains (FBD) 4 and 5 or 1 and 2. The hybrid PA possesses the ability to bind with fibrin independently and also characteristically retains a FG activation ability which becomes evident only after a pronounced duration, or lag, after stopoure of the PA to a suitable animal or human FG. The hybrid streptokinase-fibrin binding domain polypeptides are useful in

```
50 QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYG 98
                                                                                                                AAR92778;
                                                                                                                                                                                                                                                                                                                               Key
Domain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Domain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Domain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Domain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Domain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Domain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Domain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Domain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Domain
                                                                                                                                                                                                                                                                                                                                                                                             Domain
                                                                                                                                                                                                                                                                                                                                                                                                                                           Domain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Domain
                                               RESULT 3
                                                             AAR92778
a
                                                                                                                                                                                                                                                                               ö
           hybrids have enhanced fibrin selectivity as well as kinetics of plasminogen activation that are distinct from that of natural streptochiases in being characterised by a temporary delay, or lag of several minutes in the natural rate of the catalytic conversion of plasminogen to plasmin (i.e. delayed-action thrombolysis). The proteins can bind tightly with fibrin in blood clots soon after introduction into blood plasminogen to plasmin, thus saiding in the localisation of the plasminogen activation process to the site of pathological thrombus. This overcomes systemic plasminogen activation ectivation ectivation encountered during clinical use
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Proteins with cell migration stimulatory activity used in treating wound
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    The invention provides a human migration stimulatory factor (MSF) protein. Host cells containing a replicable vector comprising the MSF encoding nucleic acid can be used for the recombinant production of the protein. The polypeptide can be used for modulating cell migration, healing a wound and for preventing scarring. The present sequence represents the human fibronectin
thrombolytic therapy for various kinds of cardiovascular disorders. The
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Migration stimulatory factor; MSF; cell migration; modulation; human; wound healing; scarring; MSF1-alpha; epitope; fibronectin.
                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                               ;
0
                                                                                                                                                                                                                                                                                                              49
                                                                                                                                                                                                                                                                                                                                  QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYG 49
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 720;
                                                                                                                                                                                                                                             Length 259;
                                                                                                                                                                                                                                                                                                              1 QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYG
                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                           100.0%; Score 275; DB 3;
100.0%; Pred. No. 1.8e-28;
ive 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
100.0%; Score 275; DB 2;
Best Local Similarity 100.0%; Pred. No. 6e-28;
Matches 49; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                            AAY28914 standard; protein; 720 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Disclosure; Fig 2; 86pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Fibronectin protein sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          98WO-GB003766
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          97GB-00026539
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (first entry)
                                                                                                                                                                                                                                                                             49; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         and preventing scarring
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Schor AM;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (UYDU-) UNIV DUNDEE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WPI; 1999-430039/36
                                                                                                                                                                                                                                                            Local Similarity
                                                                                                                                                                              of streptokinase
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 720 AA;
                                                                                                                                                                                                               Sequence 259 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WO9931233-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          15-DEC-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          16-DEC-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           21-SEP-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          24-JUN-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Schor SL,
                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAY28914;
                                                                                                                                                                                                                                               Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Best Loca
Matches
                                                                                                                                                                                                                                                                  Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                                                           AAY28914
                                                                                                                                                                                                                                                                                                                                                                                             RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                              ઠ
                                                                                                                                                                                                                                                                                                                                          엄
```

```
Fibrin-binding peptide, fibronectin, fibrinolysis, fibrinogenesis, thrombus; pulmonary embolus; atherosclerosis; tumour; diagnosis; therapy.
                                                                                                                                                                                                                                                                                                                                                                            note= "type 1 module 9"
1123. .2230
1]abel = Fiborin binding domain
note= "11 kba C-terminal fibrin-binding domain"
                                                                                                                                                                                                                                                                                                                                                                                                                                                            note= "Cys2171-Cys2183 disulfide bond"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    note= "Cys2214-Cys2226 disulfide bond"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    note= "Cys2189-Cys2216 disulfide bond"
                                                                                                                                                                                                                                                                                                               "Cys439-Cys467 disulfide bond"
                                                                                                                                                                                                                                                                                                                             "Cys465-Cys477 disulfide bond"
                                                                                                                                                                                                                                                                                                                                                                                                                                            note= "Cys2144-Cys2173 disulfide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /label = 12F1
/note= "type 1 module 12"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      note= "type 1 module 11"
                                                                                                                                                                                                                                                                                                                                                                                                                              note= "type 1 module 10"
                                                                                                                                                                                                                                                                                           note= "type 1 module 7"
139. .467
'note= "Cys439-Cys467 dis
                                                                                                                                               1,
                                                                                                                                                                      2
                                                                                                                                                                                                                      4
                                                                                                                                                                                                                                              ŗ
                                                                                                                                                                                                                                                                      <u>.</u>
                                                                                                                                                                                              "type 1 module 3"
                                                                                                                                                                                                                                                                                                                                                      note= "type 1 module 8"
                                                                                                                               11. .65
/label = 1F1
/note= "type 1 module
                                                                                                                                                             /label = 2F1
/note= "type 1 module
                                                                                                                                                                                                              = 4F1
"type 1 module
                                                                                                                                                                                                                                                            /label = 6F1
/note= "type 1 module
                                                                                                                                                                                                                                               module
AAR92778 standard; protein; 2324 AA
                                                                                                                      ocation/Qualifiers
                                                                                                                                                                                                                                      = 5F1
"type 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    12F1
                                                                                                                                                                                                                                                                                                                                                                                                                     10F1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             = 11F1
                                                                                                                                                                                      label = 3F1
                                                                                                                                                                                                                                                                                                                                              label = 8F1
                                                                                                                                                                                                                                                                                                                                                                      = 9F1
                                                                                                                                                                                                                                                                                                                                                                                                             141. .2185
|abel = 10F
                                                                                                                                                                                                                                                                                       = 7F1
                                                                                                                                                                                                                                                                          .486
/label = 7
                                                                                                                                                                                                                                                                                                                                                        c.
....569
/label =
____rot
                                        (first entry)
                                                                                                                                                                              .154
                                                                                                                                                                                                                              . 244
                                                                                                                                                                                                                                                      .312
                                                                                                                                                                                                                                                                                                                     .477
                                                                                                                                                                                                                                                                                                                                      .529
                                                                                                                                                                                                      199
                                                                                                                                                      .109
                                                                                                                                                                                                      55. .1
label
                                                                                                                                                                                                note=
                                                                                                                                                                                                                       note=
                                                                                                                                                                                                                                      label,
                                                                                                                                                                                                                                               note=
                                                                                                                                                                                                                                                                                                                               note=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              label
                                (revised)
                                                                                                                                                                                                                                                                                                        439.
                                                      Human fibronectin.
                                                                                                                                                                                                                                                                                                                                                                                                                                      Disulfide-bond
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Disulfide-bond
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Disulfide-bond
                                                                                                                                                                                                                                                                                                      Disulfide-bond
                                                                                                                                                                                                                                                                                                                      Disulfide-bond
                                                                                                                                                                                                                                                                                                                                                                                                                                                     Disulfide-bond
                                                                                               Homo sapiens
Unidentified
                               21-OCT-2004
21-JUN-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Domain
```

Gaps

.; 0

Indels

.; 0

1 QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYG 49

ò

```
AAE23651;
                                                                                                                                                                                                                       Query Match
                                                                                                                                                                                                                                         Matches
                                                                                                                                                                                                                                                                                                            RESULT 5
                                                                                                                                                                                                                                                                                                                      AAE2365
 ð
                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                        Human fibronectin (AAR92778) has a fibrin-binding site, close to the C-terminus (amino acids 2123-2232 or 2141-2230), covering the 10F1.11F1 module pair of the protein. Fibrin-binding sites can be prepd. by enzymatic cleavage of fibronectin, peptide synthesis or by recombinant DNA techniques. They are used to detect a fibrin-binding target site, to treat disorders involving abnormal fibrinolysis or fibrinogenesis, to disrupt blood clots and to aid delivery of medicaments to fibrin- contgines. They show high affinity to and slow dissociation from fibrin, and
                                                                                                                                           New fibrin-binding peptide molecules - used for the diagnosis and treatment of conditions associated with fibrin deposition, e.g. thrombi.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Obtaining hematopoietic cell population containing quiescent cells for
                                                                                                                                                                                                                                                                                         Revised record issued on 21-0CT-2004 : Correction to Feature Table Key
                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                 ;
0
                                                                                                                                                                                                                                                                                                                                                                    49
                                                                                                                                                                                                                                                                                                                                                                              1 QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYG 49
                                                                                                                                                                                                                                                                                                                               Length 2324;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Human; fibronectin, VLA-4 binding site, very late antigen-4; quiescent haematopoietic cell; HC; apoptosis; CD34+.
                                                                                                                                                                                                                                                                                                                                                                    1 QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYG
                                                                                                                                                                                                                                                                                                                                                 Indels
                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                              100.0%; Score 275; DB 2; 100.0%; Pred. No. 2.4e-27;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Dutt P, Yoder MC;
                                                                                                                                                                                                                                                                                                                                                 0; Mismatches
                                                                                                                                                                                                                                                                       provide fast diffusion and rapid clearance
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (ADRE-) ADVANCED RES & TECHNOLOGY INST.
                                                                                                                                                                       Claim 2; Page 104-110; 146pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                      AAU74674 standard; protein; 2324 AA
                                      95WO-US009819
                                                        94US-00283857
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        12-MAY-2000; 2000WO-US012993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           12-MAY-2000; 2000WO-US012993
                                                                         (UYNY ) UNIV NEW YORK STATE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GB,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Human fibronectin protein.
                                                                                                                                                                                                                                                                                                                                      Local Similarity 100.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Williams DA, Bradford
                                                                                            Rostagno AA;
                                                                                                               1996-129333/13.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WPI; 2002-082932/11.
                                                                                                                         N-PSDB; AAT17551
                                                                                                                                                                                                                                                                                                            Sequence 2324 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WO200187071-A1
                                     01-AUG-1995;
                                                        01-AUG-1994;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Homo sapiens
WO9604304-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           09-APR-2002
                   15-FEB-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    22-NOV-2001
                                                                                           Gold LI,
                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAU74674;
                                                                                                                                                                                                                                                                                                                               Query Match
                                                                                                                                                                                                                                                                                                                                        Best Loc?
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 4
qq
                                                                                                                                                                                                                                                                                                                                                                     ઠે
```

```
The invention relates to obtaining a population of quiescent haematopoietic cells (HG), comprising culturing HC while adhering the cells to a pollypeptide having a very late antigen-4 (VLA-4) binding site, in particular fibronectin polypeptide, so as to expand the number of HC. Where the adhering provides an increased percentage of quiescent HC. Also included are inducing apoptosis of a subpopulation of HC, by contacting the cells with a polypeptide having a VLA-4 binding site under conditions to cause apoptosis of a subpopulation of HC and a medium for culturing HC which enriches quiescent HC, comprising a fibronectin polypeptide. The method is useful for obtaining a cell population containing quiescent haematopoietic cells which are useful for treating a subject. Use of the VLA-4 containing peptide is useful for inducing apoptosis of a subpopulation of CD34+ HC population. The present sequence is human fibronectin which contains then VLA-4 binding site used in the method of the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Modulating proliferation of erythroid progenitor cells in a hematopoietic cellular population by culturing with polypeptides containing an integrin very late antigen 5 or 4 binding site, useful in treating erythroid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           The present invention relates to a method for enhancing proliferation or inducing apoptosis of erythroid progenitor cells (EPCs). The method involves culturing haematopoietic cellular populations containing EPCs in the presence of a polypeptide having an integrin very late antigen (VLA)-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Human; proliferation; apoptosis; erythroid progenitor cell; EPC; VLA; integrin very late antigen; haematopoietic cell; induced disorder; genetic disorder; congenital erythroid disorder; polycythaemia; anaemia.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
use in treating a subject, by expanding the cells while adhered polypeptide containing binding sites for integrins on the cells.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               49
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 2324;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQMERTYLGNVLVCTCYG 49
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Human protein related to modulation of proliferation of EPCs.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              100.0%; Score 275; DB 5;
100.0%; Pred. No. 2.4e-27;
ive 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Zhang
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (ADRE-) ADVANCED RES & TECHNOLOGY INST.
                                                                                                                               Disclosure; Page 51-61; 63pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Disclosure; Page 55-64; 66pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAE23651 standard; protein; 2324 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Cooper R,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  12-MAY-2000; 2000WO-US012961.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              12-MAY-2000; 2000WO-US012961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Local Similarity 100.
nes 49; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Kapur R,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WPI; 2002-121963/16.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 2324 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WO200187037-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   10-SEP-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Williams DA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  22-NOV-2001.
```

```
New fibrin binding domain polypeptide(s) - useful in imaging fibr:
contg. substances, to inhibit thrombus formation and treat wounds
                                                                                                                                                         Fibrin-imaging; atherosclerosis; thrombus inhibitor.
                                         AAR15468 standard; protein; 2327 AA.
                                                                                                                                                                                                                                                                                                               (BIOT-) BIO-TECHN GEN
                                                                                                                                                                                                                                                                                                                                                                              WPI: 1991-369004/50.
                                                                                                                                                                                                                                                                                                                                                                                                                                contg. substances,
                                                                                                                               Human fibronectin.
                                                                                                                                                                                                                                                                                                                                                                                          N-PSDB; AAQ15214
                                                                                                                                                                                                                                                            21-MAY-1990;
                                                                                                                                                                                                                                                                                      21-MAY-1990;
                                                                                         25-MAR-2003
12-MAR-1992
                                                                                                                                                                                  Homo sapiens
                                                                                                                                                                                                           WO9117765-A.
                                                                                                                                                                                                                                   28-NOV-1991
                                                                                                                                                                                                                                                                                                                                                    Shaked H;
                                                                  AAR15468;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAG68182;
                                                                                                                                                                                                                                                                                                                                       Vogei T,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 8
                 RESULT 7
                              AAR15468
                                           à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                     ö
5 or VLA-4 binding site. The EPCs are useful for treating patients having induced, genetic or congenital erythroid disorders. Methods of the invention are useful in diagnostic assays of progenitor cells, e.g. cells occurring in pathologic states such as anaemia or polycythaemia and in the study of erythroid cell development. They are used in the screening of agents which inhibit or prevent apoptosis of erythroid cells. The present sequence is a human protein related to the modulation of proliferation of EPCs. This sequence is used in the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       The product may be expressed from a transformed micro-organism, esp. E.coli. FN binds to fibrin, heparin and Staphylococcus aureus, and may be used to target a therapuetic agent onto natural fibrin eg. a blood clot. It may also be used in affinity purification of a polypeptide, conjugated to the collagen binding site of FN and immobilised on a collagen surface. (Updated on 25-MAR-2003 to correct PA field.)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               New fibronectin polypeptide sequence with affinity for collagen etc. - useful for targetting therapeutic substances on natural fibrin, for use in affinity purificn. of polypeptide(s) etc.
                                                                                                                                                                      Gaps
                                                                                                                                                                     ö
                                                                                                                                           Length 2324;
                                                                                                                                                                                              1 QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYG 49
                                                                                                                                                                                                          QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYG 49
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          100.0%; Score 275; DB 1; Length 2327; 100.0%; Pred. No. 2.4e-27; tive 0; Mismatches 0; Indels 0.
                                                                                                                                                                     0; Indels
                                                                                                                                           Score 275; DB 5;
Pred. No. 2.4e-27;
                                                                                                                             100.0%; Scor.
100.0%; Pred. No. z.
0; Mismatches
                                                                                                                                                                                                                                                                                    AAP70373 standard; protein; 2327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Claim 11; Fig 3A; 32pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         BIOTECHNOLOGY LTD
                                                                                                                                                                                                                                                                                                                                                                            Human fibronectin gene product.
                                                                                                                                                                                                                                                                                                                                                                                                      FN; collagen; fibrin; heparin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 85GB-00016421.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          86EP-00304998.
                                                                                                                                                                                                                                                                                                                                                      (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Local Similarity 100.
                                                                                                                                                                     49; Conservative
                                                                                                                                                                                                                                                                                                                                        (revised)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WPI; 1987-001441/01.
                                                                                                                                                         Local Similarity
                                                                                                                  Sequence 2324 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         N-PSDB; AAN70596.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 2327 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (DELZ ) DELTA
                                                                                                                                                                                                                                                                                                                                                                                                                               Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          27-JUN-1986;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 28-JUN-1985;
                                                                                                                                                                                                                                                                                                                                      25-MAR-2003
11-MAR-1991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                07-JAN-1987
                                                                                                                                                                                                                                                                                                                                                                                                                                                       EP207751-A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Baralle FE;
                                                                                                                                                                                                                                                                                                              AAP70373;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
                                                                                                                                           Query Match
                                                                                                                                                                     Matches
   8888888888
                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                    ò
```

Panet A, Hartman J;

Guy R,

Werber M,

Levanon A,

90US-00526397. 90US-00526397

(revised)
(first entry)

```
ö
                                                                ဌ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Human; high bone mass; HBM gene; Zmax1 gene; chromosome 11; 11q13.3; sequence tagged site; STS; osteoporosis; osteopathic; gene therapy; antisense therapy; vaccine; bone disorder; Paget's disease; sclerostosis; osteomalacia; fibrous dysplasia.
                                                                                derive polypeptides which are identical to part of the fibrin- binding domain (FBD) of fibronectin. These polypeptides can be used to inhibit thrombus formation, or (coupled to a thrombolytic agent) to induce thrombolytis agent, or to treat wounds, e.g. in skin, eyes or tendons (in conjunction with a polypeptide which includes a part of the cell-binding domain (CBD) of fibronectin). These polypeptides are easier to prepare than the full 31kD polypeptide. It can also be used to image fibrincontg. materials, esp. a thrombus or athero- sclerotic plaque, pref. using a gamma counter. (Updated on 25-MAR-2003 to correct PI field.)
                                                             The amino acid sequence is that of human fibronectin, this can be used
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       49
                                                                                                                                                                                                                                                                                                                                                                                                                                                                100.0%; Score 275; DB 2; Length 2327; 100.0%; Pred. No. 2.4e-27;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              4 QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAG68182 standard; protein; 2328 AA
Disclosure; Fig 2; 191pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Fibronectin protein SEQ ID NO:98.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      25-JAN-2002 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Best Local Similarity 100.
Matches 49; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 2327 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MAKE KE KE KAKAK
```

ö

Gaps

ö

1 QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYG 49 QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYG 52

Best Loc Matches

ò

```
The invention describes genes (1) which are differentially regulated in prostate cancer. (2) Is useful for diagnosing a prostate cancer in a sample comprising prostate tissue, which involves determining the number of target genes which are differentially-regulated in the sample, where to target genes which are differentially-regulated in the sample, where to prostate cancer. (3) Is useful for assessing a therapeutic or preventive intervention in a subject having a prostate cancer, which involves contention in a subject having a prostate cancer. Which involves contention a subject having a prostate cancer coft target genes which are differentially-regulated in prostate cancer. Preferably, the expression levels of at least 10 genes are determined. (1) is also useful for identifying agents that modulate a biological activity of a polypeptide differentially-regulated in prostate cancer. (2) activity of a polypeptide differentially-regulated in prostate cancer cells with a test agent under conditions effective for the test agent to modulate a biological activity of the polypeptide, and determining whether the test agent modulates the biological activity. (1) is useful as molecular markers, as drug targets, and for detecting, products are used in the diagnostic test to assay for presence of cancer. (2) products are used in the diagnostic test to assay for presence of cancer e.g., in tissue sections, in biopsy sample, in total NN, in lymph, in blood etc. (1) is useful for assessing cancer e.g., to determine the type of cancer, its stage of development, the nature of genetic defect, etc. (2) is useful and also seems of genes at rarget for therapy or drug discovery. (1) can also be used for expressing the polypeptide and thus concerning especially relevant prostate cancer. The identification of specific genes, and groups of genes, expressed in pathways which are useful in disagnostic, therapeutic, and clinically relevants in the properties of genes, and groups of genes are prostate cancer. The identification of applicat
                                           Novel genes which are differentially regulated in prostate cancer, useful for diagnosing prostate cancer in prostate tissue sample and assessing therapeutic or preventive intervention in prostate cancer patients.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human; high bone mass; HBM; LRP5; LRP6; transgenic; bone mass modulation; gene therapy; bone density modulation; bone strength; trabecular number; bone size; bone tissue connectivity; bone disease; osteoporosis; osteomalacia; rickets; Paget's disease; neoplasm of the bone.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            49
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 2328;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          5 QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYG 53
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       100.0%; Score 275; DB 6;
100.0%; Pred. No. 2.4e-27;
ive 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Human fibronectin gene FN protein product.
                                                                                                                              Claim 1; Page 378-386; 416pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ABR41106 standard; protein; 2328 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    regulated in prostate cancer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Best Local Similarity 100.
Matches 49; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 2328 AA;
    N-PSDB; ABX10391.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WO200292764-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            02-JUN-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ABR41106;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ABR41106
    a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      The present invention describes the human Zmax1 gene and the high bone mass (HBM) gene, which are found on chromosome 11q13.3. The Zmax1 and HBM genes have osteopathic activities. The genes can be used in gene therapy, antisense therapy and in the production of vaccines. They can be used in the diagnosis and treatment of bone disorders including osteoporosis, the diagnosis, solerostosis, osteomalacia and fibrous dysplasia.

ABA82038 to ABA82700 and AAG68158 to AAG68193 represent sequences used in the exemplification of the present invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Prostate cancer; gene expression; differential regulation; molecular marker; drug target; cancer detection; cancer diagnosis; cancer staging; cancer grading; cancer assessing; cancer monitoring
                                                                                                                                                                                                                                                                                                                                                                                                proteins useful for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     / Match 100.0%; Score 275; DB 4; Length 2328; Local Similarity 100.0%; Pred. No. 2.4e-27; les 49; Conservative 0; Mismatches 0; Indels 0.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 49
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           5 QAQQWVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYG 53
                                                                                                                                                                                                                                                                                                                                                                                              New high bone mass (HBM) and Zmax1 genes and proteins useful modulating bone mass for the treatment of e.g. osteoporosis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Protein differentially regulated in prostate cancer #89.
                                                                                                                                                                                                                                                                                                           Johnson ML;
                                                                                                                                                                                                                                                                                                                                                                                                                                                              Claim 76; Page 408-413; 443pp; English.
                                                                                                                                                                                                                                                                                                           Recker RR,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ABU07486 standard; protein; 2328 AA.
                                                                                                                                                                                                                                                             (GENO-) GENOME THERAPEUTICS CORP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (ORIG-) ORIGENE TECHNOLOGIES INC.
                                                                                                                                                   21-JUN-2000; 2000WO-US016951.
                                                                                                                                                                                          05-APR-2000; 2000US-00543771
05-APR-2000; 2000US-00544398
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      06-APR-2001; 2001US-0281731P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          08-APR-2002; 2002WO-US010824
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (first entry)
                                                                                                                                                                                                                                                                                                           Little RD,
                                                                                                                                                                                                                                                                                                                                                    WPI; 2001-657171/75.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WPI; 2003-058520/05
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 2328 AA;
                                                           WO200177327-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WO200281638-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Jay G;
                       Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               28-JAN-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 17-0CT-2002
                                                                                                       18-OCT-2001
                                                                                                                                                                                                                                                                                                         Carulli JP,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ABU07486;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sun Z,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ABU07486
```

d

ò

ö

Gaps

```
given in ARR92047 to ABR92164. A higher level of expression of (1) than normal indicates the presence of cervical cancer. Also described: (1) a setsets the presence of cervical cancer. Also described: (1) as sessessing (II) whether a patient is afflicted with cervical cancer. Comprising comparing the level of expression of a marker in a patient's sample, and the normal level of expression of the marker in a control non-cervical cancer sample, where a significant increase in the level of expression of the marker in the patient's sample relative to that in the control sample is an indication that the patient is afflicted with cervical cancer. (1) has cytostatic activity, and can be used in gene therapy and in vaccines. (1) is useful in detecting, characterising, preventing and treating human cervical cancers. (1) may also be used in wonitoring clinical trials
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        New isolated nucleic acid molecule useful for detecting, characterizing, preventing and treating human cervical cancers, in various prognostic and diagnostic assays, in pharmacogenomics and in monitoring clinical trials.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ACF12828 to ACF12947 encode the human cervical cancer marker proteins (I)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             cancer; malignant pleural mesothelioma; MPM; lung adenocarcinoma; squamous carcinoma; medulloblastoma; prostate cancer; breast cancer; diffuse large B-cell lymphoma; follicular lymphoma; ovarian cancer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYG 49
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        5 QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYG
                                                                                                                                                                                                                                                                                                                             Kamatkar S;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   100.0%; Score 275; DB 6; 100.0%; Pred. No. 2.4e-27;
                                                                                                                                                                                                                                                                                                                             Monahan JE,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             100.0%; Preu. ...
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Claim 4; Page 212-217; 386pp; English.
                                                                                                                                                                                                                                                                                                                      Schlegel R, Chen Y, Zhao X, Monah
Gannavarapu M, Glatt K, Hoersch S;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ADB70378 standard; protein; 2328 AA
                                                                                                           13-JUN-2001; 2001US-0298155P.
                                                                                                                                        13-JUN-2001; 2001US-0298159P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                05-SEP-2001; 2001US-0317389P. 30-AUG-2002; 2002US-00236031
                                    12-JUN-2002; 2002WO-US018638
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 05-SEP-2002; 2002WO-US028203
                                                                                                                                                                                                                                                   (MILL-) MILLENNIUM PHARM INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            04-DEC-2003 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Fibronectin SEQ ID NO:70.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             49; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                    WPI; 2003-156967/15.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 2328 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         N-PSDB; ACF12859
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WO2003021229-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           13-MAR-2003.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ADB70378;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                human.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ADB70378
   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRINCE SERVICE SERVICE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           The invention relates to novel transgenic animals expressing the high bone mass (HBM) gene, expressing the corresponding wild type HBM gene, comprising an alteration of the gene encoding LRP5 or LRP6, or expressing an LRP5 that is modulated by an altered gene control sequence introduced by homologous or non-homologous recombination. The transgenic animals are for the study of bone density modulation or bone mass modulation. The invention may have a use in gene therapy. The transgenic animals and nucleic acids are for the study of bone density modulation, where the one mass is modulated relative to non-transgenic animals of the same species in more than one parameter selected from bone density, bone strength, trabecular number, bone size, or bone tissue connectivity. The stransgenic animals, nucleic acids and methods are useful for identifying molecules involved in bone development, and for developing phermaceutical compositions, which may be employed for treating or preventing bone diseases, e.g. osteoporosis, osteomalacia, rickets, Paget's disease, or neoplasms of the bone. The transgenic animals and nucleic acids are also useful in methods for disquesting on mass. The present sequence is used in the exemplification of the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         New transgenic animals (e.g. mice), useful as models for studying bone density modulation, developing drugs for treating or preventing bone diseases (e.g. osteoporosis), or diagnosing diseases characterized by reduced bone density.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human; cervical cancer; cervical cancer marker; cancer therapy; detection; gene therapy; vaccine.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   100.0%; Score 275; DB 6; Length 2328; 100.0%; Pred. No. 2.4e-27; ive 0; Mismatches 0; Indels 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYG 49
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        5 QAQQMVQPQSPVAVSQSKFGCYDNGKHYQINQQWERTYLGNVLVCTCYG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Human cervical cancer cell marker protein SEQ ID NO:64.
                                                                                                                                                                                                                                                                                                                                                                                                                                    Bodine PV;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Disclosure; Page 532-538; 603pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ABR92078 standard; protein; 2328 AA
                                                                                                                                                                                                                                                                                                                      (GENO-) GENOME THERAPEUTICS CORP
                                                                                                                                                                                                                                                                                                                                                                                                                                 Babij P, Bex FJ, Yaworsky PJ,
                                                                                                                                    11-MAY-2001; 2001US-0290071P.
17-MAY-2001; 2001US-0291311P.
01-FEB-2002; 2002US-0353058P.
                                                                  13-MAY-2002; 2002WO-US014876.
                                                                                                                                                                                                                                                   04-MAR-2002; 2002US-0361293P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             49; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WPI; 2003-129278/12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Seguence 2328 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WO2002101075-A2
                                                                                                                                                                                                                                                                                                                                                           (AMHP ) WYETH.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                10-SEP-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        19-DEC-2002.
21-NOV-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
```

Matches

ઠ 셤 ABR92078

ö

Gaps

; 0

Indels

. 0

Length 2328;

53

```
2003-129214/12.
                                                                                                                                                                                                                                     Sequence 2328 AA;
                        P-PSDB; ADB98703
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WO200292015-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Yaworsky PJ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                 29-JAN-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  21-NOV-2002.
                                                                                                                                                                                                                                                                                                                                                                                                                           ADE82522;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Allen K,
                                                                                                                                                                                                                                                                                                                                                                          RESULT 14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            The
                                                                                                                                                                                                                                                                                                                                                                                        ADE82522
 셤
                                                                                                                                                                                                                                                                                                                                                                                                   à
                                                                                                                                                                   The present invention describes a method (MI) for diagnosing the presence of cancer cells or non-cancer cells in a tissue sample, or determining the prognosis or outcome of a cancer patient. Mi involves providing a set of genes that are differentially expressed in cancerous or non-cancerous conditions, determining the expression levels of the set of genes and calculating a ratio of the expression levels of the differentially expressed genes. Mi is useful for diagnosing the presence of cancer cells or non-cancer cells in a useful for diagnosing the presence of cancer cells or non-cancer cells in a usewe sample, where the cancer is malignant pleural mesothelioma (MPM), lung adenocarcinoma, squamous carcinoma, cancer pleural mesothelioma (MPM), lung adenocarcinoma, squamous carcinoma, prognosis or outcome of a cancer breast cancer, diffuse large B-cell lymphoma, follicular lymphoma and ovarian cancer, diffuse large B-cell lymphoma, follicular lymphoma and ovarian cancer, differentially expressed genes is used as an indicator of cancer type, cancer class, and/or cancer prognosis, all of which are useful for determining a course of treatment of a patient. The present sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                             Diagnosing cancer cells in tissue sample, or determining prognosis or outcome of cancer patient, by calculating ratio of expression levels of genes that are differentially expressed in cancer and non cancer tissues.
                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Osteopathic; Gene therapy; High Bone Mass; HBM; LRP5; Zmax1; LRP6;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Liu
                                                                                                                                                                                                                                                                                                                                                                                                                                                    .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Morales A, Yaworsky PJ,
                                                                                                                                                                                                                                                                                                                                                                                                                          100.0%; Score 275; DB 7; Length 2328; 100.0%; Pred. No. 2.4e-27;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYG
                                                                                                                                                                                                                                                                                                                                                                                                                                                  Indels
                                     я,
                                    Gullans SR, Bueno
                                                                                                                                                                                                                                                                                                                                                                                                                                                    0; Mismatches
                                                                                                                                              Claim 77; Page 369-376; 396pp; English.
           (BGHM ) BRIGHAM & WOMENS HOSPITAL INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Z
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             bone mass modulation; osteoporosis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Anisowicz A, Graham JR,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ADB98726 standard; protein; 2328
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (GENO-) GENOME THERAPEUTICS CORP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       11-MAY-2001; 2001US-0290071P.
17-MAY-2001; 2001US-0291311P.
01-FEB-2002; 2002US-0353058P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              13-MAY-2002; 2002WO-US014877
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2002US-0361293P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                     Local Similarity 100.
es 49; Conservative
                                    Jensen RV,
                                                           WPI; 2003-290233/28.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Human fibronectin.
                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 2328 AA;
                                                                        N-PSDB; ADB70377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WO200292000-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (AMHP ) WYETH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            04-MAR-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                04-DEC-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       21-NOV-2002
                                    Gordon GJ,
                                                                                                                                                                                                                                                                                                                                                                             nvention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ADB98726;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Allen K,
                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                        Best Loca
Matches
ઠે
```

```
ö
                                                                                                                                                                                                                  The present invention relates to High Bone Mass (HBM), LRP5 (Zmax1) and LRP6 mutants, which results in a HBM-like phenotype when expressed in a cell. The HBM-like phenotype results in bone mass modulation and/or lipid level modulation. The invention is useful for diagnosing a HBM-like phenotype in a subject and for preparing a composition for modulating bone mass and/or lipid levels in a subject suffering from e.g. osteoporosis. The present sequence was used to illustrate the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Regulating LRPS, LRP6 or HBM activity in a subject, useful for modulating lipid levels and/or bone mass, and for in treating bone mass disorders, e.g. osteoporosis, comprises administering a composition which modulates a Dkk activity.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ij
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 he present invention relates to regulating LRP5, LRP6 or HBM activity subject comprising administering a composition which modulates a Dkk
New nucleic acid comprising a mutation in LRP5 or LRP6, useful for diagnosing a HBM-like phenotype in a subject and for preparing a composition for modulating bone mass and/or lipid levels in a subject
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LRPS; LRP6; HBM; Dkk activity; Osteopathic; Antiinflammatory; Antiarthritic; bone mass disorders; osteoporosis; hypercalcaemia; hyperostosis; osteogenesis; Wnt signaling.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ő
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  49
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 2328;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           53
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 QAQQWVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Robinson JA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Human protein sequence related to the invention #12.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   100.0%; Score 275; DB 7;
100.0%; Pred. No. 2.4e-27;
iive 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Damagnez V,
                                                                                                                                                             Disclosure; SEQ ID NO 677; 629pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Disclosure; SEQ ID NO 98; 173pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Æ
                                                                                                 suffering from e.g. osteoporosis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ADE82522 standard; protein; 2328
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Bhat BM,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (GENO-) GENOME THERAPEUTICS CORP (AMHP ) WYETH.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             17-MAY-2001; 2001US-0291311P.
01-FEB-2002; 2002US-0353058P.
04-MAR-2002; 2002US-0361293P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 17-MAY-2002; 2002WO-US015982.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ouery Match
Best Local Similarity 100...
Local Similarity 100...
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Anisowicz A,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WPI; 2003-129219/12
```

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Human; malignant pleural mesothelioma; MPM; tumour; lung adenocarcinoma;
gquamous carcinoma; medulloblastoma; prostate cancer; breast cancer;
diffuse large B-cell lymphoma; follicular lymphoma; ovarian cancer;
cytostatic.
activity. The method is useful for modulating lipid levels and/or bone mass, and is useful in treating or diagnosing abnormal lipid levels and bone mass disorders, such as osteoporosis, bond fracture, age-related loss of bone, a chondrodystrophy, drug-induced bone disorder, high bone turnover, hypercalcaemia, hypercostosis, osteogenesis, imperfecta, osteomalacia, osteomyellitis, Paget's disease, osteoarthritis, and rickets. Modulators of Dkk activity are useful for as reagents in studying bone mass and lipid level modulation, in modulating Wht signaling, or treating Dkk-mediated disorders. The present sequence represents a human protein sequence related to the invention.
                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                    1 QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYG 49
                                                                                                                                                                                                                                                                      QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYG 53
                                                                                                                                                                                             Length 2328;
                                                                                                                                                                                                                       0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                             Human malignant pleural mesothelioma (MPM) protein #31.
                                                                                                                                                                                          100.0%; Score 275; DB 7;
100.0%; Pred. No. 2.4e-27;
ive 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gullans SR, Bueno R;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (BGHM ) BRIGHAM & WOMENS HOSPITAL INC
                                                                                                                                                                                                                                                                                                                                                      ADJ37157 standard; protein; 2328 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      05-SEP-2002; 2002US-00236031
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                05-SEP-2001; 2001US-0317389P 30-AUG-2002; 2002US-0407431P
                                                                                                                                                                                                                                                                                                                                                                                                                (first entry)
                                                                                                                                                                                         Query Match
Best Local Similarity 100.'
Matches 49; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gordon GJ, Jensen RV,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WPI; 2004-141744/14.
                                                                                                                                                                Sequence 2328 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 N-PSDB, ADJ37156
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US2003219760-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                22-APR-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         27-NOV-2003
                                                                                                                                                                                                                                                                                                                                                                                   ADJ37157;
                                                                                                                                                                                                                                                                                                                            RESULT 15
                                                                                                                                                                                                                                                                                                                                            ADJ37157
                                                                                                                                                                                                                                                                               요
                                                                                                                                                                                                                                                                                                                                                                     ò
```

The invention relates to a method of diagnosing the presence of cancer cells or non-cancer cells in a tissue sample, determining prognosis or outcome of a cancer patient, selecting a course of treatment for a subject having or suspected of having malignant pleural mesothelioma (MPM) and evaluating treatment of MPM comprising determining the ratio of the expression level of a set of genes differentially expressed in a cancer is chosen from MPM, lung adenocarcinoma, squamous carcinoma, medulloblastoma, prostate cancer, breast cancer, affitues large B-cell lymphoma, follicular lymphoma and ovarian cancer. The method is useful for diagnosing MPM in a subject suspected of having MPM which involves obtaining a tissue sample suspected of being cancerous

Diagnosing the presence of cancer or non-cancer cells in tissue sample, useful for diagnosing malignant pleural mesothelioma comprises determining ratio of expression level of a set of genes expressed in

Claim 77; SEQ ID NO 70; 53pp; English.

cancer tissues

```
ö
from a subject and determining the expression of nucleic acid markers or its expression products in the tissue sample. This sequence represents a human MPW protein of the invention. Note: The sequence data for this patent did not form part of the printed specification but was obtained in electronic format directly from USPTO at seqdata.uspto.gov/sequence.html.
                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                          .
0
                                                                                                                                                                                                                                                                   1 QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYG 49
                                                                                                                                                                                                                                                                                                             53
                                                                                                                                                                            Length 2328;
                                                                                                                                                                                                                                                                                                      QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYG
                                                                                                                                                                            100.0%; Score 275; DB 8;
100.0%; Pred. No. 2.4e-27;
ive 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                           Search completed: September 30, 2005, 13:34:06 Job time : 21.3248 secs
                                                                                                                                                                                                                        49; Conservative
                                                                                                                                                                                                   Local Similarity
                                                                                                                                     Sequence 2328 AA;
                                                                                                                                                                              Query Match
                                                                                                                                                                                                                          Matches
    8888888
                                                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                                                             g
```

OM protein - protein search, using sw model

Run on:

September 30, 2005, 13:30:51; Search time 7.5627 Seconds (without alignments) 623.404 Million cell updates/sec

US-09-492-971B-15\_COPY\_4\_52 Perfect score:

275 1 QAQMYQPQSPVAVSQSKPG.....INQQWERTYLGNVLVCTCYG 49 Sequence:

Gapop 10.0 , Gapext 0.5 **BLOSUM62** Scoring table:

283416 seqs, 96216763 residues Searched:

283416 Total number of hits satisfying chosen parameters:

Minimum DB seq length: 0 Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

Database

PIR 79:\*
1: pir1:\*
2: pir2:\*
3: pir3:\*
4: pir4:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

į		do (			SUMMARIES	
ult No.	Score	Ouery Match	Length	DB	ID	Description
	275	100.0	2386	-	FNHU	fibronectin precur
~	257	93.5	2477	~	S14428	fibronectin precur
m	255	92.7	2265	-	FNBO	
ず	194	70.5	2481	~	A43908	fibronectin - Afri
L)	110	40.0	103	~	A49173	ı
9	79.5	28.9	1020	~	A29355	fibronectin - chic
7	67.5	24.5	190	~	151279	fibronectin - east
œ	57.5	20.9	941	ч	A55195	chordin precursor
σ	57	20.7	586	Н	SYMSAL	5-aminolevulinate
10	57	20.7	587	٦	SYHUAE	5-aminolevulinate
11	56.5	20.5	272	~	S03412	hypothetical prote
7	56.5	20.5	365	~	C97433	polyamine transpor
13	56.5	20.5	365	7	AD2651	hypothetical prote
14	55	20.0	338	7	T10544	inositol 1,3,4-tri
2	55	20.0	645	7	T29818	hypothetical prote
9	54.5	19.8	114	~	A34567	beta-microseminopr
12	54.5	19.8	119	7	F60767	copia polygrotein
82	54.5	19.8	169	7	A40522	plasmin (EC 3.4.21
19	54.5	19.8	220	~	T45056	hypothetical prote
20	54.5	19.8	362	~	S24551	protein-tyrosine k
21	54.5	19.8	482	7	T22754	hypothetical prote
2	54.5	19.8	648	~	A48646	amine oxidase (cop
ຕ	54.5	19.8	787	7	PC1232	copia polyprotein
24	54.5	19.8	1170	Н	TSHUP1	thrombospondin 1 p
52	54.5	•	1409	H	OFFFCP	teir
9	54	19.6	149	~	C82800	hypothetical prote
7	54	19.6	428	7	B84964	adenosylmethionine
89	54	•	836	7	AD2565	hypothetical prote
6	54	19.6	920	~	F71823	isoleucine-tRNA li

hypothetical prote hypothetical prote UDP-3-0-13-hydroxy	UDP-3-O-[3-hydroxy gamma-glutamyltran gamma-glutamyltran	plastoquinol-plast leukocyte antigen	pollen-specific pr thrombospondin 1 p hypothetical prote	hypothetical prote Distal-less (D11)	nypothetical prote conserved hypothet polyhydroxyalkanoi
T46228 T24599 S47342	D64102 F64659 H71856	S75804 A39574	S22495 A40558 E82622	E75613 A42103	AD2532 E90304 I39685
0 0 0	000	212	N 00 W	00	0 00 00
662 321 339	341 367 567	133	1170 172	250	472 520 590
19.5	6 6 6 6	1.61	19.1	18.9	18.9 18.9
53.5 53	. w w w	522.5	52.5 52.5 52.5	22 2	25 25 25 25 25 25 25 25 25 25 25 25 25 2
30 31 32	1 6 6 6 1 6 4 7	37	2 6 4 2 6 0	4 4 1 1 2 2	4 4 4 W 4 0

## ALIGNMENTS

```
fibronectin precursor [validated] - human
NiAlternate names: fibronectin splice form ED-A
C;Species Homo sapiens (man)
C;Species Homo sapiens (man)
C;Species Homo sapiens (man)
C;Date: 27-Nov-1985 #sequence revision 31-Mar-1993 #text change 09-Jul-2004
C;Accession: A56460; A26264; S03917; A24854; A24476; A91008; A93529; A21011; A90495; A2
R;Dean, D.C.; Bowlus, C.L.; Bourgeois, S.
R;Dean, D.C.; Bowlus, C.L.; Bourgeois, S.
R;Aference number: A26460; MUID:8717578; PMID:3031656
A;Accession: A26460
A;Molecule type: DNA
A;Residence number: A26460
A;Residues: 1-49 - CEBA
A;Cross-references: UNIPROT:P02751; UNIPROT:Q14327; GB:MIS801; NID:g182686; PIDN:AAA533
C;Date: A;Title: Evolution of the fibronectin gene.
A;Title: Bvolution of the fibronectin gene.
A;Reference number: A26284; MUID:86111901; PMID:300305
```

A; Recention: Humber: A26284; MUID: 86111901; FMID: 3003095
A; Accession: A26284
A; Residues: 1447-1540 colD.
A; Residues: 154-1540 colD.
A; Residues: 154-1540 colD.
A; Residues: 165-166: A: Sebasio., G.; Baralle, F.E.
Nucleic Acids Res. 16, 3545-3557, 1988
A; Richerone number: 300848; MUID: 88233940; PMID: 3375063
A; Recence number: 300848; MUID: 88233940; PMID: 3375063
A; Residues: 1594-1767, VV, 1769-1783 cold.
A; Residues: 1592-2147 cold.
A; Residues: 1992-2147 cold.
A; Residues: 1992-2147 cold.
A; Residues: 1992-2147 cold.
A; Residues: 1992-2147 cold.
A; Residues: 1009-2147 cold.
A

Fri

```
A;Molecule type: protein
A;Residues: 293-301 <GRI>
Kclalaycay, J.; Pande, H.; Lee, T.; Borsi, L.; Siri, A.; Shively, J.E.; Zardi, L.
J. Biol. Chem. 260, 12136-12141, 1985
A;Title: Primary structure of a DNA- and heparin-binding domain (domain III) in human pl.
A;Reference number: A23901; MUID:86008277; PMID:3900070
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A;Molecule type: protein
A;Residues: 616-677, Q', 679-703, 'PT', <CAL>
A;Residues: 616-677, Q', Kroslahti, E.; Sundelin, J.; Lind, P.; Peterson, P.A.
B;Pierschbacher, M.D.; Ruoslahti, E.; Sundelin, J.; Lind, P.; Peterson, P.A.
J. Biol. Chem. 257, 9593-9597, 1982
A;Title: The cell attachment domain of fibronectin. Determination of the primary structu.
A;Reference number: A92386; MUID:82265604; PMID:7050098
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A; Molecule type: protein
A; Residues: 1589-1630, Tr, 1722-2058 <GAR3>
R; Tressel, T.; McCarthy, J.B.; Calaycay, J.; Lee, T.D.; Legesse, K.; Shively, J.E.; Pand Biochem. J. 274, 731-738, 1991
Biochem. J. 274, 731-738, 1991
A; Title: Human plasma fibronectin. Demonstration of structural differences between the A; Reference number: S14357; MUID:91190085; PMID:2012601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A,Molecule type: protein
A,Residues: 2071-2080;2112-2356 <GAR4>
C,Comment: The extra domain and connecting strand 3 are subject to developmental and tis
C,Comment: The cellular and plasma fibronectins are high molecular weight glycoproteins.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A;Gene: Qube:No.

A;Gene: Qube:No.

A;Gene: Qube:No.

A;Actorian: 2g34-2g34

A;Amap position: 2g34-2g34

A;Antrono: 2g34-2g34

A;Antrono: 2g34-2g34

A;Antrono: 2g34-2g34

C;Superfamily: fibronectin; fibronectin; type I repeat homology; fibronectin type II repe
C;Keywords: acute phase; alternative splicing; cell adhesion; collagen binding; duplicating; cell. 26/Domain: signal sequence #status predicted <8IG>
C;Keywords: acute phase; alternative splicing; cell adhesion; collagen binding; duplicating; cell. 26/Domain: bignal sequence #status predicted <8IG>
F;27-31/Domain: propeptide #status predicted <8IG>
F;27-31/Domain: fibronectin type I repeat homology <1F2>
F;32-2g7/Domain: fibronectin type I repeat homology <1F3>
F;36-2g7/Domain: fibronectin type I repeat homology <1F5>
F;31-270/Domain: fibronectin type I repeat homology <1F5>
F;308-6g/Domain: collagen binding <2BP>
F;308-6g/Domain: fibronectin type II repeat homology <2F1>
F;308-342/Domain: fibronectin type II repeat homology <2F2>
F;308-6g/Domain: fibronectin type II repeat homology <2F1>
F;308-6g/Domain: fibronectin type II repeat homology <1F7>
F;308-6g/Domain: fibronectin type II repeat homology <3F2>
F;608-692/Domain: fibronectin type II repeat homology <3F3>
F;618-552/Domain: fibronectin type II repeat homology <3F3>
F;618-592/Domain: fibronectin type II repeat homology <3F3>
F;618-593/Domain: fibronectin type II repeat homology <3F3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Characterization of a 31,000-dal
                                                           Thromb. Res. 43, 469-477, 1986
A;Title: Two plasma fibronectin fragments with different gelatin-binding properties.
A;Reference number: A60904; MUID:87019725; PMID:3532418
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Characterization of a 38
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A, Molecule type: protein
A, Residues: 141-1548 <PIE>
A, Note: residues: 1524-1527 are responsible for the cell-binding activity
R, Garcia-Pardo, A.; Rostagno, A.; Frangione, B.
Biochem. J. 241, 923-928, 1987
A, Title: Primary structure of human plasma fibronectin. Characterization
A, Reference number: A32517; MUID: 87241275; PMID: 3593230
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        F;616-706/Domain: heparin binding <HPB>
F;719-801/Domain: fibronectin type III repeat homology <3FB>
F;810-891/Domain: fibronectin type III repeat homology <3FC>
R;Griffin, C.A.; Calaycay, J.; Shively, J.E.; Smith, R.L.
Thromb. Res. 43, 469-477, 1986
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A; Molecule type: protein
A; Residues: 1614-1650, T', 1722-2081, 2113-2244 <TRE>
R; Garcia-Pardo, A.; Pearlstein, B.; Frangione, B.
Biol. Chem. 260, 10326-10325, 1985
A; Title: Primary structure of human plasma fibronectin.
A; Reference number: A23891; MUID:85261459; PMID:4019516
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ation, and transformation.
                                                                                                                                                                                                                  A, Accession: A60904
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A; Accession: A23901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A; Accession: A92386
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A; Accession: A32517
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A; Accession: A23891
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A; Gene: GDB: FN1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        C; Genetics:
                                                                                                                                       A/Residues: 32-1344,1346-2080;2112-2386 <KOR>
A/Residues: 32-1344,1346-2080;2112-2386 <KOR>
A/Residues: 32-1344,1346-2080;2112-2386 <KOR>
A/Rocomblitht, A.R.; Vibe-Pedersen, K.; Baralle, F.E.

R.Kornblitht, A.R.; Vibe-Pedersen, K.; Baralle, F.E.

Nucleic Acids Res. 12, 5853-5868, 1984

A/Title: Human fibronectin: cell specific alternative mRNA splicing generates polypeptid A/Reference number: A93529; MUID:84272258; PMID:6462919

A/Reference number: A93529

A/References: GB:X00339

R/Oldberg, A.; Linney, E.; Ruoslahti, E.

J. Biol. Chem. 258, 10193-10196, 1983

A/Ritle: Molecular cloning and nucleotide sequence of a cDNA clone coding for the cell a A/Reference number: A21011; MUID:83290929; PMID:6688418
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A; Molecule type: mRNA
A; Residues: 1434-1537 <-CL2>
A; Residues: 1634-1537 <-CL2>
A; Residues: 1634-1537 <-CL2>
A; Residues: 1634-1537 <-CL2>
A; Residues: 1634-1537 <-CL2>
B; B; Bcnaxd, M.P.; Kolbe, M.; Weil, D.; Chu, M.L.
B; Chemistry 24, 2698-2704, 1985
B; Chemistry 24, 2698-2704, 1985
B; Chemistry 24, 2698-2704, 1985
A; Reference number: A90495; MUID:85280409; PMID:2992573
A; Reference mumber: A90495
A; Residues: 1594-2386 <-REX>
A; Residues: 1594-2386 <-REX>
A; Residues: 1594-2386 <-REX
A; Residues: 1594-2386 <-REX
A; Residues: 1594-2386 <-REX
A; Ross-references: GB:M10905; NID:g182696; PIDN:AAA52462.1; PID:g182697
B; Residues: B; A; Rornblihtt, A.R.; Baralle, F.E.
FEBS Lett. 186, 31-34, 1985
A; Reference number: A22245; MUID:85231203; PMID:2989004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A; Accession: B2245
A; Molecule type: mRNA
A; Molecule type: mRNA
A; Molecule type: mRNA
A; Residues: 1975-1991; 2017-2039 < UM2>
A; Residues: 1975-1991; 2017-2039 < UM2>
A; Cross-references: GB: M27590
B; Sekiguchi, K.; Klos, A.M.; Kurachi, K.; Yoshitake, S.; Hakomori, S.
B; Sekiguchi, K.; 4936-4941, 1986
A; Title: Human liver fibronectin complementary DNAs: identification of two different mes
A; Reference number: 152394; MUID: 87026578; PMID: 3021206
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A, Accession: 165273
A, Status: preliminary; translated from GB/EMBL/DDBJ
A, Status: preliminary; translated from GB/EMBL/DDBJ
A, Molecule: 1978-1990, 2016-2018, 'N', 2020-2081, 2113-2127 <SEK>
A, Residues: 1978-1990, 2016-2018, 'N', 2020-2081, 2113-2127 <SEK>
A, Cross-references: GB:M44060; NID:g182701; PIDN:AAA52464.1; PID:g182704
FX, Kornblintt, A.R.; Vibe-Pedersen, K.; Baralle, F.E.
Proc. Natl. Acad. Sci. U.S.A. 80, 2218-3222, 1983
A, Fitle: Isolation and characterization of CDNA clones for human and bovine fibronectins
A, Reference number: A21165; MUID:83221567; PMID:6304699
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A/Accession: A21165
A/Aolecule type: many
A/Rossidues: 2291-2386 - KO3-
A/Coss-references: GB:KO0799; NID:g182681; PIDN:AAA52460.1; PID:g182684
A/Cross-references: GB:KO0799; NID:g182681; PIDN:AAA52460.1; PID:g182684
B/Garcia-Pardo, A.; Pearlstein, E.; Frangione, B.
J. Biol. Chem. 258, 12670-12674, 1983
A/Title: Primary structure of human plasma fibronectin.
A/Reference number: A92398; MUID:84032463; PMID:6630202
A/Accession: A92398; MUID:84032463; PMID:6630202
A/Aocession: A92399; MUID:84032463; PMID:6630202
A/Aocession: A92398; MUID:84032463; PMID:6630202
A/Aocession: A92398; MUID:93312001; PMID:8323285
A/Title: Further characterization of the binding of fibronectin to gelatin reveals the ference number: S34791; MUID:93312001; PMID:8323285
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A;Accession: A22245
#Onlecule type: mRNA
A;Residues: 1948-2067 <UME>
A;Cross-references: GB:M27589; NID:g182705; PIDN:AAA52465.1; PID:g182706
     number: A91008; MUID:85284965; PMID:2992939
                                                                                                            Status: nucleic acid sequence not shown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A;Accession: S34791
A;Molecule type: protein
A;Residues: 291-300;551-560 <GAR2>
```

gon

kDa

ò 셤

```
C;Superfamily: fibronectin; fibronectin type I repeat homology; fibronectin type II reprofisensel; 51/1; 94/1; 2416/3; 2454/3
C;Superfamily: fibronectin; fibronectin type I repeat homology; fibronectin type II reproficed csIG>
C;Reywords: alternative spliting; cell adhesion; collagen binding; disulfide bond; C;Reywords: alternative spliting; cell adhesion; collagen binding; disulfide bond; C;Reywords: fibronectin type I repeat homology alth>
F;53-8470/Domain: fibronectin type I repeat homology alth>
F;142-180/Domain: fibronectin type I repeat homology alth>
F;187-226/Domain: fibronectin type I repeat homology alth>
F;30-401/Domain: fibronectin type I repeat homology alth>
F;30-401/Domain: fibronectin type II repeat homology alth>
F;30-401/Domain: fibronectin type III repeat homolo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Fig02-97/JOGMain: Informectin type III repeat homology <FN3D-PF1076/Domain: fibronectin type III repeat homology <FN3D-PF1085-1164/Domain: fibronectin type III repeat homology <FN3D-PF1085-138/Domain: fibronectin type III repeat homology <FN3G-PF1265-1348/Domain: fibronectin type III repeat homology <FN3D-PF1365-1348/Domain: fibronectin type III repeat homology <FN3D-PF1447-1529/Domain: fibronectin type III repeat homology <FN3D-PF1644-166/Region: cell attachment (R-G-D) motif F7164-1616/Region: cell attachment (R-G-D) motif F7161-1713/Domain: fibronectin type III repeat homology <FN3D-PF161-1803/Domain: fibronectin type III repeat homology <FN3D-PF161-1803/Domain: fibronectin type III repeat homology <FN3D-PF1912-2104/Domain: fibronectin type III repeat homology <FN3D-PF1912-2135/Domain: fibronectin type III repeat homology <FN3D-PF1912-2135/Domain: fibronectin type III repeat homology <FN3D-PF1912-2135/Domain: fibronectin type III repeat homology <FN3D-PF1913-2235/Domain: fibronectin type II repeat homology <FN3D-PF1218-1238/Domain: fibronectin type I repeat homology <FN3D-PF1238-1238/Domain: fibronectin type I repeat homology <FN3D-PF1238-124-136/142-136/142-136/142-136/142-136/142-136/142-136/142-136/142-136/142-136/142-136/142-136/142-136/142-136/142-136/142-136/142-136/142-136/142-136/142-136/142-136/142-136/142-136/142-136/142-136/142-136/142-136/142-136/142-136/142-136/142-136/142-136/142-136/142-136/142-136/142-136/142-136/142-136/142-136/142-136/142-136/142-136/142-136/142-136/142-136/142-136/142-136/142-136/142-136/142-136/142-136/142-136/142-136/142-136/142-136/142-136/142-136/142-136/142-136/142-136/142-136/142-136/142-136/142-136/142-136/142-136/142-136/142-136/142-136/142-136/142-136/142-136/142-136/142-136/142-136/142-136/142-136/142-136/142-136/142-136/142-136/142-136/142-136/142-136/142-136/142-136/142-136/142-136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           C;Species: Bos primigenius taurus (cattle)
C;Date: 31-Dec-1988 #sequence revision 31-Dec-1988 #text_change 09-Jul-2004
C;Date: 31-Dec-1988 #sequence revision 31-Dec-1988 #text_change 09-Jul-2004
C;Accession: A26452; B21165; A22292
R;Skorstengaard, K.; Jensen, M.S.; Sahl, P.; Petersen, T.E.; Magnusson, S. Bur. J. Blochem. 161, 441-453, 1986
A;Title: Complete primary structure of bovine plasma fibronectin.
A;Reference number: A26452; MUID:87054047; PMID:3780752
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                     A;Residues: 1722-1810 <RES>
A;Cross-references: GB:M11750; NID:g204164; PIDN:AAA41170.1; PID:g554437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               33 QAQQIVQPPSPVAVSQSKPGCFDNGKHYQINQQWERTYLGNALVCTCYG 81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 2477;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 257; DB 2; Lengtn 22. Pred, No. 2.98-23;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A;Accession: A26452
A;Molecule type: protein
A;Residues: 1-2265 <SKO>
A;Cross-references: UNIPROT:P07589
B;Kornblihtt, A.R.; Vibbe-Pedersen, K.; Baralle, F.
Proc. Natl. Acad. Sci. U.S.A. 80, 3218-3222, 1983
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   91.8%; Prec. ...
     translated from GB/EMBL/DDBJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         45; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Best Local Similarity
Matches 45; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     .bronectin - bovine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A,Accession: A27252
A,Molecule type: mRNA
A,Residues: 1586-170, T',1722,1813-2477 <SC2>
R;Odermatt, E.; Tamkun, J.W.; Hynes, R.O.
Proc. Natl. Acad. Sci. U.S.A. 82, 6577-6575, 1985
A;Title: Repeating modular structure of the fibronectin gene: Relationship to protein st
A;Reference number: 159049; MUID:86016741; PMID:3863113
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A,Accession: S00459
A,Molecule type: DNA
A,Molecule type: DNA
A,Molecule type: DNA
A,Rosidues: 1-139,2382-2477 <PAT>
A,Cosidues: 1-139,2382-2477 <PAT>
A,Cosidues: 1-139,2382-2477 <PAT>
A,Cosidues: 1-139,2382-2477 <PAT>
A,Cosidues: The authors translated the codon CCT for residues 51 and 94 as Ala
B,Schwarzbauer, J.E.; Tamkun, J.W.; Lemischka, I.R.; Hynes, R.O.
A,Tille: Three different fibronectin mRNAs arise by alternative splicing within the codi
A,Reference number: A27252; MUID:84082067; PMID:6317187
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A; Molecule type: mRNA
A; Residues: 1-2477 < HTMS
A; Cross-references: UNIPROT: P04937; EMBL:X15906; NID:g56163; PIDN:CAA34020.1; PID:g56164
A; Cross-references: UNIPROT: P04937; Fonda, D.; Hynes, R.O.
EMBO J. 6, 2573-2580, 1987
EMBO J. 6, 2573-2580, 1987
A; Title: Multiple sites of alternative splicing of the rat fibronectin gene transcript.
A; Reference number: S12455; MUID:88054951; PMID:2445560
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       91
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ij
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               evidence for exon shuffling durin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A;Status: preliminary
A;Modecule type: procedul
B;Datel, R.S.; Odermatt, E.; Schwarzbauer, J.E.; Hynes, R.O.
B;Patel, R.S.; Odermatt, E.; Schwarzbauer, J.E.; Hynes, R.O.
A;Tile: Organization of the fibronectin gene provides evidence for exon shuffling dur;
A;Tile: Organization of the fibronectin gene provides evidence for exon shuffling dur;
A;Reference number: S00459; MUID:88054950; PMID:3119323
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A Molecule type: mRNA
A; Residues: 609-1810, T',1812-2283 «SCH»
A; Residues: 609-1810, T',1812-2283 «SCH»
A; Crass references: EMBL:X15906
B; Tamkun, J. W.; Schwarzbauer, J.E.; Hynes, R.O.
Proc. Natl. Acad. Sci. U.S.A. 81, 5140-5144, 1984
A; Title: A single rat fibronectin gene generates three different mRNAs by alternative by R.C. Reference number: A22319; MUID:84298097; PMID:6089177
A; Reference number: A22319; MUID:84298097; PMID:6089177
A; Residues: 2052-2237 «TAM»
B; Residues: 2052-2237 «TAM»
B; Residues: 201, 745-751, 1994
A; Title: Isolation and characterization of fibronectin-alpha(1)-microglobulin complex a; Reference number: 846203; MUID:94330948; PMID:7519849
                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Species: Rattus norvegicus (Norway rat)
Date: 28-Oct-1994 #sequence revision 28-Oct-1994 #text change 09-Jul-2004
Accession: S14428; S12455; Ā22319; S46203; S00459; A27252; I59049
                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                 ő
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            32 QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYG 80
                                                                                                                                                                                                                                                                                                                 Length 2386;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYG
                                          F;996-1077/Domain: fibronectin type III repeat homology <37E5-
F;1086-1164/Domain: fibronectin type III repeat homology <37E7-
F;113-1258/Domain: fibronectin type III repeat homology <37E7-
F;1266-1349/Domain: fibronectin type III repeat homology <37E7-
                                                                                                                                                                                                                                                                                                                                                                                                                 Indels
906-988/Domain: fibronectin type III repeat homology
                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                           Score 275; DB 1;
Pred. No. 1.7e-25;
                                                                                                                                                                                                                                                                                                                                                                                                                      0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              C;Accession: S14428; S12455; A22319; S46203; SHYDDES, R.O.
R;Hynes, R.O.
Romaitted to the EMBL Data Library, July 1989
A;Reference number: S14428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A, Accession: S12455
A, Status: nucleic acid sequence not shown
                                                                                                                                                                                                                                                                                                      Query Match

Best Local Similarity 100.0%;

Matches 49; Conservative 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             bronectin precursor - rat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A; Accession: 159049
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A; Accession: S14428
```

14:33:33

30

Sep

Fri

QAQQIVQPQSPLTVSQSKPGCYDNGKHYQINQQWERTYLGSALVCTCYG

```
셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        clowment: Phromecting bind cell surraces and various compounds including collagen, till clowment: Phromecting bind cell surraces and various compounds including collagen, till clowment: Phromecting binds.

Clowment: Diama fibromectin is synthesized by hepatocytes.

Clowment: Diama fibromectin is synthesized by hepatocytes.

Clowment: Diama fibromectin type I repeat homology, fibromectin type II repeat homology, clips.

Fib.194/Domain: Elbromectin type I repeat homology and the fibromectin fype II repeat homology and the fibromectin fype III repeat homology and the fibromectin fy
                                                                                                                                                                                                                                                                                                                                                                                                                                                               A; Molecule type: protein
A;Residues: 1-16, C', 18-20, S', 22-432,447-463;1367-1517;1567-1673;2062-2176, 'N', 2178-226
C;Comment: Cys-1201 and Cys-2015 have free sulfhydryl groups.
C;Comment: The plasma fibronectin molecule consists of two chains, which are connected by C;Comment: The plasma fibronectin soluding cell surfaces and various compounds including collagen, fith
                                                                                                              ;Molecule type: mRNA;
;Mosidues: 2170-2265 ¢KOR>
;Cosos-references: 2170-2265 ¢KOR>
;Crosos-references: GB:K00800; NID:g163055; PIDN:AAA30521.2; PID:g5713323
;Petersen, T.E.; Thogersen, H.C.; Skorstengaard, K.; Vibe-Pedersen, K.; Sahl, P.; Sottr roc. Natl. Acad. Sci. U.S.A. 80, 137-141, 1983
;Title: Partial primary structure of bovine plasma fibronectin: three types of internal ;Reference number: A23292; MUID:83117805; PMID:6218503
for human and bovine fibronecting
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (covalent) #status experimental
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 255; DB 1; Lengtn 22. Pred. No. 4.7e-23; Indels
Title: Isolation and characterization of cDNA clones f
Reference number: A21165; MUID:83221567; PMID:6304699
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              :2263/Binding site: phosphate (Ser)
```

```
A;Residues: 1-2481 <DES>
A;Cross-references: GB:M77820
A;Cross-references: GB:M77820
C;Superfamily: fibronectin; fibronectin type I repeat homology; fibronectin type II repeat C;Keywords: duplication; extracellular matrix; glycoprotein; heterodimer
F;55-90/Domain: fibronectin type I repeat homology <IF:>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Fil260-1349/Journal inclusion type in repeat homology Fil260-1349/Journal inclusion in type in repeat homology Fil367-1440/Domain: fibronectin type III repeat homology Fil38-1620/Domain: fibronectin type III repeat homology Fil38-1620/Domain: fibronectin type III repeat homology Fil38-161/Region: cell attachment (R-G-D) mocif
Fil32-1714/Domain: fibronectin type III repeat homology Fil38-181-1894/Domain: fibronectin type III repeat homology Fil38-1894/Domain: fibronectin type III repeat homology Fil391-2075/Domain: fibronectin type III repeat homology Fil391-237/Domain: fibronectin type III repeat homology Fil391-237/Domain: fibronectin type II repeat homology Fil391-2389/Domain: fibronectin type I repeat homology Fil391-2380/Domain: fibronectin type I repeat homology Fil391-2380/Domain: fibronectin type I repeat homology Fil391-2423/Domain: fibronectin type I repeat homology Fil391-2428/Domain: fibronectin type I repeat homology Fil
                                                C;Species: Xenopus laevis (African clawed frog)
C;Date: 31-Dec-1993 #sequence_revision 31-Dec-1993 #text_change 12-Feb-1999
C;Accession: A49908
R;DeSimone, D.W.; Norton, P.A.; Hynes, R.O.
Dev. Biol. 149, 357-369, 1992
A;Title: Identification and characterization of alternatively spliced fibronectin mRNAs
A;Reference number: A43908; MUID:92111942; PMID:1730390
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Status: nucleic acid sequence not shown; not compared with conceptual translation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ï
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   fibronectin - mouse (fragment)
C;Species: Wus muscutlus (house mouse)
C;Date: 19-Dec-1993 #sequence revision 18-Nov-1994 #text_change 09-Jul-2004
C;Accession: A49173; A31371; G60597
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  F;359/Domain: fibronectin type I repeat homology <1F2>
F;100-138/Domain: fibronectin type I repeat homology <1F2>
F;104-182/Domain: fibronectin type I repeat homology <1F3>
F;104-273/Domain: fibronectin type I repeat homology <1F5>
F;244-273/Domain: fibronectin type I repeat homology <1F5>
F;364-32/Domain: fibronectin type II repeat homology <2F2>
F;361-36/Domain: fibronectin type II repeat homology <2F2>
F;471-509/Domain: fibronectin type II repeat homology <1F7>
F;471-509/Domain: fibronectin type II repeat homology <1F9>
F;510-693/Domain: fibronectin type II repeat homology <1F9>
F;610-693/Domain: fibronectin type III repeat homology <1F9>
F;610-693/Domain: fibronectin type III repeat homology <1F3>
F;810-891/Domain: fibronectin type III repeat homology <1F3>
F;906-998/Domain: fibronectin type III repeat homology <1F30-F;910-891/Domain: fibronectin type III repeat homology <1F30-F;108-1107/Domain: fibronectin type III repeat homology <1F30-F;108-1105/Domain: fibronectin type III repeat homology <1F30-F30-F30-F30-F30-F5-F30-F5-F30-F5-F30-F5-F30-F5-F30-F5-F30-F5-F30-F5-F30-F5-F30-F5-F30-F5-F30-F5-F30-F5-F30-F5-F30-F5-F30-F5-F30-F5-F30-F5-F30-F5-F30-F5-F30-F5-F30-F5-F30-F5-F30-F5-F30-F5-F30-F5-F30-F5-F30-F5-F30-F5-F30-F5-F30-F5-F30-F5-F30-F5-F30-F5-F30-F5-F30-F5-F30-F5-F30-F5-F30-F5-F30-F5-F30-F5-F30-F5-F30-F5-F30-F5-F30-F5-F30-F5-F30-F5-F30-F5-F30-F5-F30-F5-F30-F5-F30-F5-F30-F5-F30-F5-F30-F5-F30-F5-F30-F5-F30-F5-F30-F5-F30-F5-F30-F5-F30-F5-F30-F5-F30-F5-F30-F5-F30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        49
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             83
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 2481;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    QQQQVVQPQG--TQDNHQKGCYDNGKYYQINQQWERTYLGNTLVCTCYG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            #status predicted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          #status predicted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 194; DB 2; Length 24 Pred. No. 1.7e-15; Mismatches 9; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     F;2459/Disulfide bonds: interchain (to 2463) F;2463/Disulfide bonds: interchain (to 2459)
fibronectin - African clawed frog
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              70.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     larity 71.4%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Local Similarity
nes 35; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A; Molecule type: mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A; Accession: A43908
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    37
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
```

ò

ô

Gaps

ö 49

Length 2265;

92.7%; 89.8%;

Query Match Best Local Similarity 89.8 Matches 44; Conservative

```
fibronectin - eastern newt (fragment)
                                                                              28.9%;
41.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
20.9%;
Best Local Similarity 31.9%;
Matches 15; Conservative (
                                                                                    Query Match 28.9
Best Local Similarity 41.2
Matches 14; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ଚ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Cyaccession: A29355
Rynotton, P.A.; Hynes, R.O.
Mol. Cell. Biol. 7, 4297-4307, 1987
A;Title: Alternative splicing of chicken fibronectin in embryos and in normal and transf A;Reference number: A29355; MulD:88142820; PMID:2830487
A;Reference number: A29355; MulD:88142820; PMID:2830487
A;Reference number: A29355; MulD:88142820; PMID:2830487
A;Residues: 1-1020 «NOR»
A;Residues: 1-1020 «NOR»
A;Residues: 1-1020 «NOR»
A;Cossis references: UNIPROT:P11722
C;Genetics:
A;Introns: 176/3
C;Superfamily: fibronectin; fibronectin type II repeat homology; fibronectin; heter F;1-86/Domain: fibronectin type III repeat homology «FN3I»
F;27-259/Region: cell attachment (R-G-D) motif
F;27-259/Domain: fibronectin type III repeat homology «FN3I»
F;27-259/Domain: fibronectin type III repeat homology «FN3I»
F;27-356/Domain: fibronectin type III repeat homology «FN3I»
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A.Accession: C60597
A.Status: nucleic acid sequence not shown
A.Status: nucleic acid sequence not shown
A.Status: nucleic acid sequence not shown
A.Amolecule type: mRNA
A.Residues: 1-103 «RYS>
C.Superfamily: fibronectin; fibronectin type I repeat homology; fibronectin type II reper C.Keywords: alternative splicing; duplication; extracellular matrix; glycoprotein; heter Fil-1-46/Domain: fibronectin type I repeat homology «IF12»
F.11-37, 35-46/Disulfide bonds: #status predicted
F.84/Disulfide bonds: interchain (to 88) #status predicted
F.88/Disulfide bonds: interchain (to 84) #status predicted
R;Khandjian, E.W.; Salomon, C.; Leonard, N.; Tremblay, S.; Turler, H.

Exp. Cell Res. 202, 464-470, 1992

A;Title: Induction of Expression in proliferating, quiescent, and SV40-infected mous A;Reference number: A49173; MUID:93011702; PMID:1327855

A;Accession: A49173

A;Accession: A49173

A;Reliantiary

A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              C'Superfamily: fibronectin, fibronectin type I repeat homology; fibronectin type II repeat homology; fibronectin type II repeat homology; fibronectin; heter F;1-86/Domain: fibronectin type III repeat homology <FN31>
F;92-177/Domain: fibronectin type III repeat homology <FN31>
F;92-177/Domain: fibronectin type III repeat homology <FN33>
F;257-259/Region: cell attachment (R-G-D) motif
F;274-356/Domain: fibronectin type III repeat homology <FN3K>
F;364-46/Domain: fibronectin type III repeat homology <FN3K>
F;364-46/Domain: fibronectin type III repeat homology <FN3K>
F;454-536/Domain: fibronectin type III repeat homology <FN3K>
F;566-628/Domain: fibronectin type III repeat homology <FN3K>
F;636-718/Domain: fibronectin type III repeat homology <FN3K>
F;636-718/Domain: fibronectin type III repeat homology <FN3K>
F;636-718/Domain: fibronectin type III repeat homology <FN3K>
F;640-979/Domain: fibronectin type III repeat homology <FN3K>
F;940-979/Domain: fibronectin type II repeat homology <FN3K>
F;940-979/Domain: fibronectin type III repeat homology <FN3K>
F;940-969,967-979/Domain: fibronectin type III repeat homology <FN3K>
FYDE III repeat homology <FN3K + FN3K + FN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           act
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A;Accession: A31371
A;Molecule type: mRNA
A;Residues: 1-65, N', 67-103 <BLA>
A;Cross-references: GB:M18194; GB:J03646; NID:G193329; PIDN:AAA37636.1; PID:G387159
R;Ryseck, R.P.; Macdonald-Bravo, H.; Zerial, M.; Bravo, R.
Exp. Cell Res. 180, 537-545, 1989
A;Title: Coordinate induction of fibronectin, fibronectin receptor, tropomyosin, and a;Reference number: A60597; MUID:89121031; PMID:2521606
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                lbronectin - chicken (fragment)
;Species: Gallus gallus (chicken)
;Decies: 31-Dec_1988 #sequence_revision 31-Dec-1988 #text_change 09-Jul-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 103;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  40.0%; Score 110; DB 2; Length 10
51.7%; Pred. No. 1.9e-06;
ive 7; Mismatches 7; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               21 CYDNGKHYQINQQWERTYLGNVLVCTCYG 49
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CYDDGKTYHVGEQWQKEYLGAICSCTCFG 39
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ilarity 51.7%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity
Matches 15; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8
```

```
Notes, J.D.; Tassava, R.A.

Notes, J.D.; Tassava, R.A.

Notes, J.D.; Tassava, R.A.

Dev. Dyn. 202, 153-164, 1995

A;Title: Examination of fibronectin distribution and its sources in the regenerating new figures.

A;Reference number: I51279; MUID:95252528; PMID:7734733

A;Accession: I51279

A;Accession: I51279

A;Residues: Drelliminary; translated from GB/EMBL/DDBJ

A;Residues: 1-190 <NAC-

A;Residues: 1-190 <NAC-

C;Superfamily: fibronectin, type I repeat homology <2P2-

F;7-49/Domain: fibronectin type I repeat homology <2P2-

F;7-49/Domain: fibronectin type I repeat homology <1F8-

F;105-142/Domain: fibronectin type I repeat homology <1F8-

F;105-142/Domain: fibronectin type I repeat homology <1F8-

F;148-186/Domain: fibronectin type I repeat homology <1F8-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      C; Accession: A55195

K; Sasai, Y; Iu, B.; Steinbeisser, H.; Geissert, D.; Gont, L.K.; De Robertis, E.M.

Call 79, 779-790, 1994

A; Tilu; S.P.; De Robertis, E.M.

Call 79, 779-790, 1994

A; Tilu; S.P.; De Robertis, E.M.

A; Reference number: A55195; MUD: 95094250; PMID: 8001117

A; Reference number: A55195

A; Accession: A55195

A; Accession: A55195

A; Residues: L-941 c-8AS.

A; Residues: L-941 c-8AS.

A; Residues: L-941 c-8AS.

A; Cross-references: UNIPROT: Q91713; GB: L35764; NID: g603944; PIDN: AAC42222.1; PID: g60394

C; Superfamily: chordin; von Willebrand factor type C repeat homology cVWC2.

F; 72-119/Domain: von Willebrand factor type C repeat homology cVWC2.

F; 770-840/Domain: von Willebrand factor type C repeat homology cVWC2.

F; 770-840/Domain: von Willebrand factor type C repeat homology cVWC3.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    5-aminolevulinate synthase (EC 2.3.1.37) precursor, erythroid-specific, mitochondrial -
                                                                        ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ..
H
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    <u>ښ</u>
                                                                                                                                                                                                                                                                                                                                                                                                                 C,Species: Notophthalmus viridescens, Triturus viridescens (eastern newt)
C,Date: 13-Sep-1996 #sequence_revision 13-Sep-1996 #text_change 09-Jul-2004
C,Accession: IS1279
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 chordin precursor - African clawed frog
C;Species: Xenopus laevis (African clawed frog)
C;Date: 10-Sep-1999 #sequence_revision 10-Sep-1999 #text_change 09-Jul-2004
                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1;
                                                                        ij
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    'n
Length 1020;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 190;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DB 1; Length 941;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         48
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          73
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 21; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         6 VQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLG---NVLVCT-CY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    28 IQPEQEPLQSKTPAGCTFGGKFYSLEDSWHPD-LGEPFGVMHCVLCY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 11;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             12 VAVSQSKPGCYDNGKHYQINQQW-ERTYLGNVLVCTCYG
   DB 2;
                                                                                                                                                                                    17 SKPGCYDNGKHYQINQQWERT-YLGNVLVCTCYG 49
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 57.5; DB
Pred. No. 49;
6; Mismatches
   Score 79.5; Di
Pred. No. 0.1;
8; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
24.5%; Score 67.5; Di
Best Local Similarity 38.5%; Pred. No. 0.6;
Matches 15; Conservative 8; Mismatches
```

Gaps

; 0

Indels

predicted

```
C;Species: Shigella sonnei
C;Species: Shigella sonnei
C;Species: Shigella sonnei
C;Accession: S03412
R;Matsutani, S.; Ohtsubo, H.; Maeda, Y.; Ohtsubo, E.
A;Title: 196, 445-455, 1987
A;Title: Isolation and characterization of IS elements repeated in the bacterial chromos A;Reference number: S03411; MUID:88062685; PMID:2824781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A;Cross-references: UNIPROT:P16940; EMBL:XOS952; NID:948667; PIDN:CAA29385.1; PID:948669
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       C;Species: Agrobacterium tumefaciens
C;Species: Agrobacterium tumefaciens
C;Date: 30-Sep-2001 #sequence_revision 30-Sep-2001 #text_change 09-Jul-2004
C;Accession: C97433
R;Goodner, B.; Hinkle, G.; Gattung, S.; Miller, N.; Blanchard, M.; Qurollo, B.; Goldman, A.; Liu, F.; Wollam, C.; Allinger, M.; Doughty, D.; Scott, C.; Lappas, C.; Markelz, B.,, Science 294, 2333-2328, 2001
A;Title: Genome Sequence of the Plant Pathogen and Biotechnology Agent Agrobacterium tum A;Reference number: A97359; MUID:21608551; PMID:11743194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A;Cross-references: UNIPROT:Q8UHSO; GB:AE007869; PIDN:AAK86420.1; PID:g15155556; GSPDB:C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              187 RVIQEQSGLKTSMSRKGNCYDNAPMESFWGTLKNESLSHYRFNNRDEAISVIREYIEIFY 246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               VVAPTSPFLARQIKAGVYQKLDKSKLPNLKNAWPDITERLAKYDPGNEYAVNYMWGTTGI 137

    Agrobacterium tumefaciens

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A;Map positīon: circular chromosome
C;Superfamily: Escherichia coli spermidine/putrescine-binding protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           hypothetical protein B - Shigella sonnei insertion sequence IS600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DB 2; Length 272;
F;194-534/Domain: glycine C-acetyltransferase homology <GCA> F;391/Binding site: pyridoxal phosphate (Lys) (covalent) #status
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         --KHYOINQOWE--
                                                                                                                 Length 587;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 18;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                12;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DB 2;
                                                                                                                     1;
                                                                                                                 DB
36;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 56.5; I
Pred. No. 20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       polyamine transport protein (PA0300) [imported]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             26;
                                                                                                                                                                                              Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              5 MVQPQSPVAVSQSKPGC------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             4 QMVQPQSPVAVSQSKPG-CYDNG------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 56.5;
Pred. No. 26
                                                                                                                 Score 57;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A, Mobile element: insertion sequence 18600
C, Superfamily: transposase 183
                                                                                                                                                                                                                                                                                                                        |::: :|||:||:
563 HFELMSEWERSYFGNM 578
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   20.5%;
26.4%;
                                                                                                                                                                                                                                                                           42
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ch 20.5%;
1 Similarity 24.6%;
15; Conservative
                                                                                                             20.7%;
ilarity 43.8%;
Conservative
                                                                                                                                                                                                                                                                           27 HYQINQQWERTYLGNV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Superfamily: transposase IS3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    247 NRORRHSRĽĠŇI 258
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               42
                                                                             Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity
Matches 15; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A,Status: preliminary
A,Molecule type: DNA
A,Residues: 1-365 <KUR>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A; Molecule type: DNA
A; Residues: 1-272 <MAT>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                G 40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A; Gene: AGR C 1084
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        19;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               39
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             C,Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  C;Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ξ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      C97433
                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8
                                                                                                                                                                                                                                                                                                                                        A; Molecule type: mRNA
A; Residues: 1-586 <SCH)
A; Residues: 1-586 <SCH)
A; Residues: 1-586 <SCH)
A; Cross-references: UNIPROT: P08680; GB:MI5268; NID:g191857; PIDN:AAA37207.1; PID:g387096
B; Ferreira, G.C.; Neame, P.J.; Dailey, H.A.
Protein Sci. 2, 1959-1965, 1993
A; Title: Heme biosyntheasis in mammalian systems: evidence of a Schiff base linkage betwe A; Title: Heme biosyntheasis in mammalian systems: evidence of a Schiff base linkage betwe A; Contents: annotation; cofactor binding site
C; Comment: The transit peptide is removed from the nuclear-encoded precursor during tranidoxal phosphate; it catalyzes the formation of 5-aminolevulinic acid from succinyl CoA C; Superfamily: 5-aminolevulinate synthase; glycine C-acetyltransferase homology
C; Keywords: acyltransferase; coenzyme A; mitochondrial matrix; mitochondrion; phosphoprof; F; 1-8/Pommain: transit peptide (mitochondrion) #status predicted <TRM>F; 9-586/Product: 5-aminolevulinate synthase #status predicted <MAT>
F; 193-533/Domain: glycine C-acetyltransferase homology <GCA>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            C;Accession: S16347; S13683—
R;Cox, T.C.; Bawden, M.J.; Martin, A.; May, B.K.
EMBO J. 10, 1891-1902, 1991
A;Title: Human erythroid 5-aminolevulinate synthase: promoter analysis and identificatio
A;Reference number: S16347; MUID:91266919; PMID:2050125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A;Accession: S16347
A;Atatus: preliminary
A;Astatus: preliminary
A;Actorser. preliminary
A;Residues: 1-587 < COX>
A;Residues: 1-587 < COX>
A;Cross-references: UNPROT: P22557; EMBL: X60364; NID: 928587; PIDN: CAA42916.1; PID: 928588
A;Cross-references: UNPROT: P22557; EMBL: X60364; NID: 928587; PIDN: CAA42916.1; PID: 928588
A;Note: the sequence from Fig. 4 is inconsistent with that from Fig. 2 in having 147-Leu
R;Bishop, D.F.
R;Bishop, D.F.
A;Ditle: Two different genes encode delta-aminolevulinate synthase in humans: nucleotide
A;Reference number: S13682; MUID: 91088347; PMID: 2263504
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A; Molecule (Type: mRNA)
A; Residues: 6-181, 'F', 183-587 <BIS>
A; Cross-references: EMBL:X56352; NID:928585; PIDN:CAA39795.1; PID:928586
C; Genetics: references: EMBL:X56352; NID:928585; PIDN:CAA39795.1; PID:928586
C; Genetics: GDB:ALASE
A; Cross-references: GDB:119666; OMIM:301300
A; Cross-references: GDB:11968
C; Complex: homodimer
C; Complex
                                                                                                                                             Rischeenhaut, D.S.; Curtis, P.J. Gene 48, 55-63, 1986
A;Title: Nucleotide sequence of mouse 5-aminolevulinic acid synthase cONA and expression A;Reference number: A29040; MUID:87163516; PMID:3557128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          5-aminolevulinate synthase (EC 2.3.1.37) precursor, erythroid-specific, mitochondrial -
N.Alternate names: 5-aminolevulinate synthase 2; erythroid delta-aminolevulinate synthas
C;Species: Homo sapiens (man)
C;Date: 21-Nov-1993 #sequence_revision 06-Sep-1996 #text_change 09-Jul-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       F;193-533/Domain: glycine C-acetyltransferase homology <GCA>
F;330/Binding site: pyridoxal phosphate (Lys) (covalent) #status experimental
                        Species: Mus musculus (house mouse)
Date: 30-Jun-1990 #sequence_revision 30-Jun-1990 #text_change 09-Jul-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 57; DB 1; Length 586;
Pred. No. 36;
Alternate names: delta-aminolevulinate synthase, nonspecific
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          6; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |::: :|||:| ||:
562 HFELMSEWERSYFGNM 577
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     20.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   27 HYQINQQWERTYLGNV 42
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      7; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                            Accession: A29040
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A; Accession: S13683
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
```

(strain C58,

38

ä

Length 365;

Indels

Gaps

. 0

```
C;Species: Caenorhabditis elegans
C;Date: 15-Oct-1999 #sequence_revision 15-Oct-1999 #text_change 09-Jul-2004
C;Date: 15-Oct-1999 #sequence_revision 15-Oct-1999 #text_change 09-Jul-2004
C;Date: 12-Oct-1999 #sequence_revision 15-Oct-1999 #text_change 09-Jul-2004
C;Date: 1729#18
R;Minx, P.; Le, T.
Submitted to the EMBL Data Library, March 1996
A;Description: The sequence of C. elegans cosmid F25E2.
A;Reference number: 220691
A;Reference number: 220691
A;Accession: T29#18
A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Residues: 1-645 < MIN>
A;Residues: 1-645 < MIN>
A;Residues: 1-645 < MIN>
A;Reperimental source: strain Bristol N2
C;Genetimental source: strain Bristol N2
A;Acene: CESP:F25E2.2
A;Entrons: 54/1; 94/1; 154/1; 179/3; 209/1; 249/1; 321/1; 422/1; 551/2; 623/1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
20.0%; Score 55; DB 2; Length 645;
Best Local Similarity 38.5%; Pred. No. 70;
Matches 10; Conservative 3; Mismatches 13; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Search completed: September 30, 2005, 13:31:51 Job time : 9.5627 secs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     251 GCRHNGKVYRHNEEWNSEDGATVYAC 276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            20 GCYDNGKHYQINQQWERTYLGNVLVC 45
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 inositol 1,3,4-trisphosphate 5/6-kinase homolog T12G13.10 - Arabidopsis thaliana inositol 1,3,4-trisphosphate 5/6-kinase homolog T12G13.10 - Arabidopsis thaliana (G)Species: Arabidopsis thaliana (Mouse-ear cress)
C;Species: Arabidopsis thaliana (Mouse-ear cress)
C;Species: 16-Uhl-1999 #sequence_revision 16-Uhl-1999 #text_change 09-Uhl-2004
C;Accession: T10544
R;Bevan, M.; Lennard, N.; Quail, M.; Harris, B.; Rajandream, M.A.; Barrell, B.G.; Bancro submitted to the Protein Sequence Database, June 1999
A;Reference number: Z16533
A;Residuer T10544
A;Molecule type: DNA
A;Residues: 1-33 e kBV>
A;Residues: 1-34 e kBV>
A;Residues: 1-35 e kBV>
A;Residues:
                                                                                                                                                                                                                                                                                                                                                                                 C; Accession: AD2651
R; Wood, D.W.; Seubal, J.C.; Kaul, R.; Monks, D.; Chen, L.; Wood, G.E.; Chen, Y.; Woo, I. Seubal, J.C.; Kaul, R.; Monks, D.; Kutyavin, T.; Levy, R.; Li, M.; McClell; Karp, P.; Romero, P.; Zhang, S.
Science 294, 2317-2323, 2001
A; Authors: Yoo, H.; Tao, Y.; Biddle, P.; Jung, M.; Krespan, W.; Perry, M.; Gordon-Kamm,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A, Status: preliminary
A, Molecule type: DNA
A, Residues: 1-365 «KUR»
A, Cross-references: UNIPROT: Q8UHSO; GB: AE008688; PIDN: AAL41626.1; PID: g17738965; GSPDB:C
C, Sexperimental source: strain C58 (Dupont)
A, Gene: por
                                                                                                                                                                                                                                                           hypothetical protein potF [imported] - Agrobacterium tumefaciens (strain C58, Dupont) C;Species: Agrobacterium tumefaciens C;Species: 11-Jan-2002 #sequence_revision 11-Jan-2002 #text_change 09-Jul-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ster, E.W.

A;Title: The Genome of the Natural Genetic Engineer Agrobacterium tumefaciens C58.

A;Reference number: AB2577; MUID:21608550; PMID:11743193
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  -----YDNGKHYQINQQWERTYL 39
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          25; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       4; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A;Map position: circular chromosome
C;Superfamily: Escherichia coli spermidine/putrescine-binding protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 365;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           20.0%; Score 55; DB 2; Length 338; 41.4%; Pred. No. 37;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          18;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DB 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  20.5%; Score 56.5; DB
24.6%; Pred. No. 26;
tive 3; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   5; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       12 VAVSQSKP----GCYDNGKHYQINQQWER 36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         5 MVQPQSPVAVSQSKPGC---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Best Local Similarity 41.4%;
Matches 12; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match 20.5%
Best Local Similarity 24.6%
Matches 15, Conservative
                                                         138 G 138
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                138 Ġ 138
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                40 G 40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
                                                             윱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
```

RESULT 15 T29818 hypothetical protein P25E2.2 - Caenorhabditis elegans

This Page Blank (uspto)

```
oryctolagus
bos taurus
canis famil
equus cabal
                                                                                                                                            gallus gall
notophthalm
anopheles g
ambystoma m
homo sapien
oryctolagus
pleurodeles
                                                              brachydanio
                                                 bos taurus
                                                                                                                                                                                                          drosophila
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   P. SEQUENCE FROM N.A.

TISSUE=Human colon endothel primary cell culture;

TISSUE=Human colon endothel primary cell culture;

A Bloecker H., Boecher M., Mewes H.W., Weil B., Amid C., Osanger A.,

B. Submitted (JUN-2003) to the EMBL/GenBank/DDBJ databases.

EMBL, BK538045; CAD97984.1; -.

EMBL, BK538045; CAD97984.1; -.

EMBL, BK538045; CAD97984.1; -.

EMBL, BK53800655; CE-extracellular; IEA.

InterPro; IPR000620; EGF_like.

InterPro; IPR000652; FN_TYPe_II.

Pfam; PF000039; fnl; 9.

Prom; PF0000995; FN_TYPe_II; 2.

SMART; SM00059; FN_TYPe_II; 2.

SMART; SM00059; FN_TYPE_II; 2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    OGMZF4;
05-UUL-2004 (TrEMBLrel. 27, Created)
05-UUL-2004 (TrEMBLrel. 27, Last sequence update)
05-UUL-2004 (TrEMBLrel. 27, Last annotation update)
Hypothetical protein DKFZp686K139 (Hypothetical protein DKFZp686F219)
(Fragment).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Mammalia, Eutheria, Primates, Catarrhini, Hominidae, Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        124 QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNALVCTCYG 172
                              091289 | 095kv5 | 095kv5 | 007c2w7 | 02863 | 028275 | 028377 | 0291400 | 0091400 | 0090xq2 | 090xq2 | 090xq0 | 000xq2 | 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     98.5%; Score 271; DB 2; Length 749; 98.0%; Pred. No. 3.7e-25; ive 0; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      749 AA; 83524 MW; C8DDF97F3ED2F0DE CRC64;
                                                                                                                                                                                                                                                                                                                                         Q72391 PRELIMINARY; PRT; 749 AA. Q72391; 01-0CT-2003 (TYENBLrel. 25, Created) 01-0CT-2003 (TYENBLrel. 25, Last sequence update) 01-MAR-2004 (TYENBLrel. 26, Last annotation update) Hypothetical protein DKFZp686B18150.
                                                                                                                                                                                                                                                             ALIGNMENTS
               002816

002816

00712W7

00712W7

00712W7

0028693

0028693

0028693

0028693

0028693

0028693

003087

0070W5

0070W5

0070W5

0070W5

0070W5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PROSITE; PS00022; EGF 1; UNKNOWN 1. PROSITE; PS01253; FIBRONECTIN 1; 9. PROSITE; PS00023; FIBRONECTIN 2; 2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity 98.0°
Matches 48; Conservative
2193
1328
1328
347
195
195
522
522
1256
190
141
141
141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Hypothetical protein. SEQUENCE 749 AA; 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                              Homo sapiens (Human)
 NCBI_TaxID=9606
 110
104
103.5
87.5
82.5
80.5
80.5
80.5
80.5
67.5
                                                                                                                                                                                           65.5
64.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Q6MZF4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 2
Q6MZF4
                                                                                                                                                                                                                                                                                                             RESULT 1
 Q7Z391
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          BEALLA
                                                                                                                                                                                                                                                                                                                                                              a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          homo sapien
mus musculu
mus musculu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       homo sapien
mus musculu
homo sapien
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       sapien
sapien
sapien
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          oryctolagus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        homo sapien
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        bos taurus
mus musculu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           homo sapien
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            xenopus lae
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        xencpus lae
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          xenopus lae
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           brachydanio
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          brachydanio
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         brachydanio
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          brachydanio
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          rattus norv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            bos taurus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           bos taurus
                                                                                                             52 ; Search time 35.4502 Seconds (without alignments) 707.807 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        homo
homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Description
                                                                                                                                                                                           275 - - INQQWERTYLGNVLVCTCYG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           006mzf4
068046
0680646
0680645
0680625
0680625
0680637
080637
091789
091789
091789
091789
091789
091789
091789
091789
091789
091789
091789
091789
091789
091789
091789
091789
091789
091789
091789
091789
091789
091789
091789
091789
091789
091789
091789
091789
091789
091789
091789
091789
091789
091789
091789
091789
091789
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            27z391
                                                                                                                                                                                                                                                                                                                             1612378
                5.1.6
Compugen Ltd.
                                                                                                                                                                                                                                                                                                                          Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                            1612378 seqs, 512079187 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SUMMARIES
                  GenCore version (c) 1993 - 2005
                                                                                                               September 30, 2005, 13:30:52
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Q8C6J7
FINC MOUSE
Q68DP8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FINC RAT
FINC BOVIN
FINC XENLA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Q7T1S2
093406
093405
Q6JAN2
FINC_RABIT
Q862C9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FINC HUMAN
Q6N025
Q6MZU5
Q6BDP9
                                                                                                                                                                                                                                                                                                                                                                                                           Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                          US-09-492-971B-15_COPY_4_52
                                                                               - protein search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Q6MZF4
Q6N0A6
Q68DT4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Q9H382
Q7L553
Q99KD0
Q6PJE5
Q71U44
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Q6N084
Q6MZS0
Q68CX6
                                                                                                                                                                                                                                           BLOSUM62
Gapop 10.0 , Gapext 0.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             07Z391
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            UniProt_03:*
1: uniprot_sprot:*
2: uniprot_trembl:*
                                                                                                                                                                                                                                                                                                                                                          length: 0
length: 2000000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query
Match Length DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       11.03
22.23
23.29
22.43
22.43
22.43
22.43
22.43
24.43
24.43
24.43
24.43
24.43
24.43
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          215
358
2478
922
2408
                                 Copyright
```

sed

Minimum DB Maximum DB

Database

Perfect score:

Sequence:

OM protein

Run on:

Scoring table:

ö

111000111100

Score

Š.

Result

0

Gaps

```
The German cDNA Consortium;

A Koehrer K., Beyer A., Mewes H.W., Weil B., Amid C., Osanger A.,

E Koehrer K., Beyer A., Mewes H.W., Weil B., Amid C., Osanger A.,

Submitted (ANG-2004) to the EMBL/GenBank/DDBJ databases.

E EMBL; CR49281; CAH18136.1; -

E MBL; CR49281; CAH18136.1; -

E InterPro; IPR000208; Aldehyd dehydrog.

E InterPro; IPR000208; Fibrinctn1.

E InterPro; IPR00039; Fibrinctn1.

E InterPro; IPR000396; FNIII subd.

E InterPro; IPR000396; FNIII subd.

E InterPro; IPR000396; FNIII subd.

E EMPT FF000040; F11. 12.

E Ffam; PF000041; F13. 12.

E Ffam; PR000011; FNIYPEII.

E PRINTS; PR00012; FNIYPEII.

E PRINTS; PR00011; FNIYPEII.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYG 49
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 32 QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNALVCTCYG 80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   98.5%; Score 271; DB 2; Length 2296; 98.0%; Pred. No. 1.2e-24; rative 0; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DB 2; Length 2357;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2296 AA; 252761 MW; 9AB2D723CC0CED70 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  259090 MW; BEAE3990E27E532A CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRINTS; PROCOL4; PRYTYEII.

ProDom; PD000995; FN_Type_II; 2.

SWART; SW00059; FN1; 12.

SWART; SW00069; FN2; 2.

SWART; SW00060; FN3; 15.

PROSITE; PS00060; FN3; 15.

PROSITE; PS00021; EGF 1; UNKNOWN 2.

PROSITE; PS01253; FIBRONECTIN 1; 12.

PROSITE; PS01253; FIBRONECTIN 2.

PROSITE; PS01253; FIBRONECTIN 2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         25-OCT-2004 (TrEMBLrel. 28, Created)
25-OCT-2004 (TrEMBLrel. 28, Last sequence update)
25-OCT-2004 (TrEMBLrel. 28, Last annotation update)
Hypotherical protein DKFZp686F10164.
                                                                                                                                                                                                                                                                                                                         PROSITE; PS00687; ALDEHYDE_DEHYDR_GLU; UNKNOWN_1.PROSITE; PS000023; EGF 1, UNKNOWN 2.PROSITE; PS01023; FIBRONECTIN 11, 12.PROSITE; PS01023; FIBRONECTIN_2; 2.PROSITE; PS0835; FN3; 15.Hypother Drotein, 2526 AA; 252761 WW; 9AB2D723CCOCED70
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRT; 2357 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             98.5%; Score 271;
                                                                                                                      PRINTS; PRO0012; FNTYPEI.
PRINTS; PR00013; FNTYPEII.
PRODON; PD000995; FN TYPE_II; 2.
SMART; SM00059; FN1; 12.
SMART; SM00059; FN2; 2.
SMART; SM00060; FN3; 15.
InterPro; IPR000562; FN_Type_II
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Best Local Similarity 98.0
Matches 48; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A.
TISSUE=Uterus endothel;
                           Pfam; PF00039; fn1; 12.
Pfam; PF00040; fn2; 2.
Pfam; PF00041; fn3; 15.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Homo sapiens (Human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Q68DT4
Q68DT4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 4
Q68DT4
ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A CONTRACTOR OF THE CONTRACT O
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                 TISSUB-Human cervix;
The German Human cervix;
The German Human consortium;
Ansorge W., Krieger S., Regiert T., Rittmueller C., Schwager B.,
Mewes H.W., wail B., Amid C., Osanger A., Pobo G., Han M., Wiemann S.;
Submitted (AUG-2003) to the EMBL/GenBank/DDBJ databases.
EMBL; BX649182; CAE46200.1;
EMBL; BX640802; CAE45885.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TISSUE-Human uterus endothel primary cell culture;
THe German Human CDNA Consortium;
FODO G., Han M. Wiemann S.;
Submitted (AUG-2003) to the EMBL/GenBank/DDBJ databases.
BMBL, BX640608; CAR45714.1;
GO: GO:0005576; C:extracellular; IEA.
InterPro; IPR002086; Aldehyd dehydrog.
InterPro; IPR000083; Fibrnch1.
InterPro; IPR003961; FN III.
InterPro; IPR003961; FN III.
                                                Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Homo sapiens (Human).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 1103;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        98.5%; Score 271; DB 2; Length 11
98.0%; Pred. No. 5.6e-25;
tive 0; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1103 AA; 122113 MW; 82FEC4CAF634AD56 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        05-JUL-2004 (TrEMBLrel. 27, Created)
05-JUL-2004 (TrEMBLrel. 27, Last sequence update)
05-JUL-2004 (TrEMBLrel. 27, Last annotation update)
Hypothetical protein DKFZp686M04163.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRT; 2296 AA
Name=DKFZp686K139; Synonyms=DKFZp686F219;
                                                                                                                                                                                                                                                                                                                                                                                                                                                    GG, GG:0005576; CHEATOROLLIAR; IEA.
InterPro; IPR006209; EGF_like.
InterPro; IPR006209; EGF_like.
InterPro; IPR0018951; FN III.
InterPro; IPR0018957; FN III.
InterPro; IPR0018957; FN III.-like.
InterPro; IPR0018957; FN III.-like.
InterPro; IPR0018957; FN III.-like.
Pfam; PF00040; fn2; 2.
Pfam; PF00041; fn3; 4.
PRINTS; PR00013; FNTYPEII.
PROPOM; PD000995; FN TYPE II; 2.
SMART; SM00059; FN TYPE II; 2.
SMART; SM00069; FN II; 3.
SMART; PR00187; PR00187; FIBRONECTIN I; 9.
PROSITE; PS00023; FIBRONECTIN I; 9.
PROSITE; PS00023; FIBRONECTIN I; 2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Hypothetical protein
                                      Homo sapiens (Human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A.
                                                                                                                                                                                               SEQUENCE FROM N.A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NON TER
SEQUENCE
```

QENOA6; Q6N0A6

100 NO A A LO A LO A A LO A L

RESULT 3

ઠ d

Fri

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MEDLINE-87175578; PubMed-3031656; Dean D.C., Bowlus C.L., Bourgeois S.; "Cloning and analysis of the promotor region of the human fibronectin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE OF 973-2386 FROM N.A. (ISOFORM 3).
MEDLINE=84272258; PubMed=6462919;
Kornblihtt A.R., Vibe-Pedersen K., Baralle F.E.;
"Human fibronectin: cell specific alternative mRNA splicing generates polypeptide chains differing in the number of internal repeats.";
Nucleic Acids Res. 12:5853-5868(1984).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE OF 103-481 AND 2228-2386 FROM N.A. (ISOFORMS 1; 3, 8 AND 9). TISSUE-Peripheral blood T-cell, and Umbilical vein endothelial cells;
                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                     MEDLINE=21600194; PubMed=11737888; DOI=10.1186/bcr325;
Schor S.L., Schor A.M.;
"Phenotypic and genetic alterations in mammary stroma: implications
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MEDLINE=87030890; PubMed=3770189; DOI=10.1016/0014-5793(86)80029-1; Gutman A., Yamada K.M., Kornblihtt A.R.; "Human fibronectin is synthesized as a pre-propolypeptide."; FEBS Lett. 207:145-148(1986).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              may
                                                                                                                                                                                                                                                                                                                                                Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Mammalia, Eutheria, Primates, Catarrhini, Hominidae, Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      В.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MEDLINE=88233940; PubMed=3375063;
Paolella G., Henchcliffe C., Sebastio G., Baralle F.E.;
"Sequence analysis and in vivo expression show that alternative
                                                                                                                                                                                        P02751, 096KP9; 096KP9; 091121; 014325; 014326; 086T27; 081VI8; 096KP7; 096KP9; 096KP9; 091188; 0914P35; 091WK2; 21-JUL-1986 (Rel. 01, Created) 01-NOV-1997 (Rel. 35, Last sequence update) 25-OCT-2004 (Rel. 45, Last annotation update) Fibronectin precursor (FN) (Cold-insoluble globulin) (CIG).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE OF 28-2386 FROM N.A. (ISOFORM 3).
MEDLINE=85284965; PubMed=2992939;
Kornblihtt A.R., Umezawa K., Vibe-Pedersen K., Baralle F.E.;
"Primary structure of human fibronectin: differential splicing igenerate at least 10 polypeptides from a single gene.";
EMBO J. 4:1755-1759(1985).
                   ö
                                                   1 QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQMERTYLGNVLVCTCYG 49
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Han M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Submitted (JUN-2003) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Godfrey H.P., Ebrahim A.A.;
Submitted (DEC-1995) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ansorge W., Krieger S., Regiert T., Rittmueller C.,
Mewes H.-W., Weil B., Amid C., Osanger A., Fobo G.,
Pred. No. 1.2e-24;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Proc. Natl. Acad. Sci. U.S.A. 84:1876-1880(1987).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE OF 1232-1782 FROM N.A. (ISOFORM 7)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A. (ISOFORMS 3; 7 AND 10).
                                                                                                                                                                                  2386
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Breast Cancer Res. 3:373-379(2001).
                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A. (ISOFORM 2)
98.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE OF 1-38 FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE OF 1-49 FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             for tumour progression.";
                 Conservative
                                                                                                                                                                                                                                                                                                            Name=FN1; Synonyms=FN;
Homo sapiens (Human).
Similarity
                                                                                                                                                                                                                                                                                                                                                                                    NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   IISSUE=Cervix;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Wiemann S.;
                                                                                                                                                                              FINC HUMAN
Best Local
                 Matches
                                                                                     g
                                                                                                                                                                                  ò
```

```
MEDINE-87026578; PubMed=3021206;
Sekiguchi K., Klos A.M., Kurachi K., Yoshitake S., Hakomori S.;
"Human liver fibronectin complementary DNAs: identification of two
different messenger RNAs possibly encoding the alpha and beta subunits
of plasma fibronectin.";
                                                                                                                                                                                                                                 P.A.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MEDLINE=84032463; PubMed=6630202;
Garcia-Pardo A., Pearlstein E., Frangione B.;
"Primary structure of human plasma fibronectin. The 29,000-dalton NH2-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE OF 309-608, AND COLLAGEN-BINDING.
MEDLINE=87080265; PubMed=3024962;
Owens R.J., Baralle F.E.;
"Mapping the collager-binding site of human fibronectin by expression in Escherichia coll.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Exon structure of cell attachment
human fibronectin gene are
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  carboxyl-terminal domains separated by
                                                                                                                                                                                                                                                                                                                                                           Oldberg A., Linney E., Ruoslahti E.; "Molecular cloning and nucleotide sequence of a cDNA clone coding the cell attachment domain in human fibronectin."; J. Biol. Chem. 258:10198 (1983).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MEDLINE-86042625; PubMed-2414772;
Liu M.C., Yu S., Sy J., Redman C.M., Lipmann F.;
"Tyrosine sulfation of proteins from the human hepatoma cell line
                                                                                                                                                                                                          MEDINE-82265664; PubMed-7050098; Perschacher M.D., Ruoslahti E., Sundelin J., Lind P., Peterson "The cell attachment domain of fibronectin. Determination of the
                                                                   SEQUENCE OF 1257-1365 FROM N.A. (ISOFORM 11).
MEDLINE=88041070; PubMed=3478690;
Gutman A., Kornblihtt A.R.;
"Identification of a third region of cell-specific alternative splicing in human fibronectin mRNA.";
Proc. Natl. Acad. Sci. U.S.A. 84:7179-7182(1987).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TISSUB=Cartilage,
MEDLINE=22126816; PubMed=12127832; DOI=10.1053/joca.2002.0792;
MEDLINE=22126816; PubMed=12127832, Maciewicz R.A.;
Bautell J., Carr A., Maciewicz R.A.;
Novel cartilage-specific splice variants of fibronectin.";
Osteoarthritis Cartilage 10:528-534 (2002).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE OF 1788-2386 FROM N.A. (ISOFORMS 4; 5 AND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE OF 1594-2386 FROM N.A. (ISOFORM 1).
MEDLINE-85280409; PubMed-2992573;
Bernard M.P., Kolbe M., Weil D., Chu M.-L.;
"Human cellular fibronectin: comparison of the portion with rat identifies primary structural hypervariable regions.";
splicing of ED-B and ED-A regions of the
independent events.";
                               Nucleic Acids Res. 16:3545-3557 (1988).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          J. Biol. Chem. 258:12670-12674(1983).
                                                                                                                                                                                                                                                                                                                                                                                                                                [12] SEQUENCE OF 1448-1540 FROM N.A. MEDLINE=86111901; PubMed=3003095; Oldberg A., Ruoslahti B.; "Evolution of the fibronectin gene.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          domain.";
J. Biol. Chem. 261:2113-2116(1986).
                                                                                                                                                                                                                                                                                     J. Biol. Chem. 257:9593-9597(1982)
                                                                                                                                                                                                                                                                                                                                            MEDLINE=83290929; PubMed=6688418;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     iochemistry 25:4936-4941(1986).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Biochemistry 24:2698-2704 (1985).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE OF 1712-1739 FROM N.A.
                                                                                                                                                                                                                                                                                                                         SEQUENCE OF 1448-1540 FROM N.A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     J. 5:2825-2830(1986)
                                                                                                                                                                                             SEQUENCE OF 1441-1548.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE OF 32-290.
                                                                                                                                                                                                                                                                    primary structure.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SULFATION
```

```
O6MZU5
                                        Q6N025
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Matches
              RESULT 6
Q6N025
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 7
                                                        ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                         INTERACTION WITH LGALSJBP.

PubMed=9501082; DOI=10.1093/emboj/17.6.1606;

Sasaki T., Brakebusch C., Engel J., Timpl R.;

"Mac-2 binding protein is a cell-adhesive protein of the extracellular matrix which self-assembles into ring-like structures and binds betal integrins, collagens and fibronectin.";

EMBO J. 17:1606-1613(1998).
                                                                                                                                                 FBLN1-BINDING SITE.
MEDLINE=93015879; PubMed=1400330;
Balbona K., Tran H., Godyna S., Ingham K.C., Strickland D.K.,
Argraves W.S.;
"Fibulin binds to itself and to the carboxyl-terminal heparin-binding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MEDLINE=96069779; PubMed=7583666;
Potts J.R., Phan I., Williams M.J., Campbell I.D.;
"High-resolution structural studies of the factor XIIIa crosslinking site and the first type 1 module of fibronectin.";
[27]
                                                                                                                                                                                                                                                                          MEDLINE=95081153; PubMed=7989369;
Rostagno A., Williams M.J., Baron M., Campbell I.D., Gold L.I.;
"Further characterization of the NH2-terminal fibrin-binding site on
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             "IH \overline{\rm IMMR} assignment and secondary structure of the cell adhesion type III module of fibronectin.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MEDLINE=93046665; PubMed=1423622; DOI=10.1016/0092-8674(92)90600-H; Main A.L., Harvey T.S., Baron M., Boyd J., Campbell I.D.; "The three-dimensional structure of the tenth type III module of the ibronectin: an insight into RGD-mediated interactions."; Cell 71:671-678(1992).
                                                                Tressel T., McCarthy J.B., Calaycay J., Lee T.D., Legesse K., Shively J.E., Pande H.; "Human plasma fibronectin. Demonstration of structural differences between the A- and B-chains in the III CS region."; Biochem. J. 274:731-738(1991).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      "Solution structure of a pair of fibronectin type 1 modules with fibrin binding activity."; J. Mol. Biol. 235:1302-1311(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MEDLINE=94141923; PubMed=8308892;
Williams M.J., Phan I., Harvey T.S., Rostagno A., Gold L.I.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 2386;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         STRUCTURE BY NMR OF 1447-1540.
MEDLINE=92162710, PubMed=1311202;
Baron M., Main A.L., Driscoll P.C., Mardon H.J., Boyd J.,
Campbell I.D.;
           oc. Natl. Acad. Sci. U.S.A. 82:7160-7164(1985)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       98.5%; Score 271; DB 1;
ilarity 98.0%; Pred. No. 1.2e-24;
Conservative 0; Mismatches 1;
                                                                                                                                                                                                                                                              CHARACTERIZATION OF FIBRIN-BINDING SITE 1.
                                                                                                                                                                                                                      region of fibronectin.";
J. Biol. Chem. 267:20120-20125(1992).
                                                                                                                                                                                                                                                                                                                                Biol. Chem. 269:31938-31945(1994).
                                                     MEDLINE=91190085; PubMed=2012601;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Biochemistry 31:2068-2073(1992).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STRUCTURE BY NMR OF 1447-1540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STRUCTURE BY NMR OF 182-275
                                        O-GLYCOSYLATION OF THR-2064
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Campbell I.D.;
                                                                                                                                                                                                                                                                                                                      fibronectin.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
 HepG2."
                                                                                                                                                                                                                                                                                                                                                22]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                26]
```

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      The German Human CDNA Consortium,
Poustka A., Albert R., Moosmayer P., Schupp I., Wellenreuther R.,
Poustka A., Albert R., Moosmayer P., Schupp I., Wellenreuther R.,
Boustka A., Albert R., Moosmayer P., Schupp I., Wellenreuther R.,
Submitted (Aug-2003) to the EMBL/GenBank/DDBJ databases.

EMBL, BX640731; CAB45847.1; --
GO, GO.005576; C:extracellular; IEA.

InterPro; IPR002086; Aldehyd dahydrog.

InterPro; IPR002086; Aldehyd dahydrog.

InterPro; IPR000895; FIbrinth1.

InterPro; IPR008957; FN_III-like.

InterPro; IPR008957; FN_III-like.

InterPro; IPR008957; FN_III-like.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.
SEQUENCE FROM N.A.
TSSUB-Human endometrium carcinoma cell line;
The German Human cDNA Consortium;
Bloecker H., Boecher M., Mewes H.W., Weil B., Amid C., Osanger A.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                          Bukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Mammalia, Eutheria, Primates, Catarrhini, Hominidae, Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               49
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 2444;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            98.5%; Score 271; DB 2; Length 24 98.0%; Pred. No. 1.3e-24; ive 0; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2444 AA; 268676 MW; 71C5E8C56A84C7BC CRC64;
                                            05-JUL-2004 (TrEMBLrel. 27, Created)
05-JUL-2004 (TrEMBLrel. 27, Last sequence update)
05-JUL-2004 (TrEMBLrel. 27, Last annotation update)
Hypothetical protein DKFZp686M2451 (Fragment)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         05-JUL-2004 (TrEMBLrel. 27, Created)
05-JUL-2004 (TrEMBLrel. 27, Last sequence update)
05-JUL-2004 (TrEMBLrel. 27, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PROSITE; PSO0667; ALDEHYDE DEHYDR GLU; UNKNOWN_1.
PROSITE; PSO1022; BGF 1; UNKNOWN 2.
PROSITE; PSO1022; FIBRONECTIN 1; 12.
PROSITE; PSO0023; FIBRONECTIN 2; 2.
PROSITE; PS50853; FN3; 16.
Hypothetical protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TISSUE=Human endometrium carcinoma cell line;
PRT; 2444 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRT; 2477 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Hypothetical protein DKFZp68601166.
Name=DKFZp68601166;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRINTS; PROD013; FWTYPEII.
ProDom; PD000995; FW Type_II; 2.
SMART; SW00059; FW1; 12.
SMART; SW00059; FW3; 2.
SWART; SW00060; FW3; 16.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         48; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Pfam; PF00039; fn1; 12
Pfam; PF00040; fn2; 2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Pfam; PF00041; fn3; 16
                                                                                                                                                                                                                                                                                                                                       Homo sapiens (Human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Homo sapiens (Human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NON TER
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DDT ACCOOK SERVING THE SERVING SERVING
```

Gaps

ö

1; Indels

Local Similarity es 48; Conserv

Matches

ò 셤

1 QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYG 49

32

```
Query Match
Best Local Similarity 95.93
Matches 47; Conservative
                                                                                                                                                                                                                                                                                                                                                                         PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mus musculus (Mouse)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NCBI_TaxID=10090;
                                                                                                                                                                                                                                                                                                                                                                         Q8C6J7
      셤
                                                                                                                                                                                                                              ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Rochrer K., Beyer A., Mewes H.W., Weil B., Amid C., Osanger A., Pobner K., Beyer A., Memann S.;

Submitted (AUG-2004) to the EMBL/GenBank/DDBJ databases.

EMBL: CR749316; CAH18171.1;

InterPro; IPR002086; Aldehyd dehydrog.

R InterPro; IPR000209; EGF_like.

R InterPro; IPR00039; Fibrnotni.

R InterPro; IPR003962; FNIII subd.

R InterPro; IPR003962; FNIII subd.

R InterPro; IPR003952; FNIII subd.

R InterPro; IPR003952; FNIII-like.

R InterPro; IPR00039; Milli-like.

R Pfam; PF00040; fn2; 2.

R Pfam; PF00041; fn3; 12.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Buteleostomi;
Mammalia, Butheria, Primates, Catarrhini, Hominidae, Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYG 49
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  32 QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNALVCTCYG 80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     98.5%; Score 271; DB 2; Length 2477; 98.0%; Pred. No. 1.3e-24; ive 0; Mismatches 1; Indels
Fobo G., Han M., Wiemann S.;
Submitted (AUG-2003) to the EMBL/GenBank/DDBJ databases.
BMBL; BX440875; CZR55932.1; -
GO; GO:0005576; C:extracellular; IEA.
InterPro; IPR002086; Aldehyd dehydrog.
InterPro; IPR002095; FAlehyd dehydrog.
InterPro; IPR000209; FGF like.
InterPro; IPR000557; FN III.
InterPro; IPR000557; FN III.-like.
InterPro; IPR000557; FN III.-like.
InterPro; IPR000562; FN III.-like.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   272335 MW; D358D85C6B18207C CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          25-0CT-2004 (TrEMBLrel. 28, Created)
25-0CT-2004 (TrEMBLrel. 28, Last sequence update)
25-0CT-2004 (TrEMBLrel. 28, Last annotation update)
Hypothetical protein DKF2p686K08164.
                                                                                                                                                                                                                                                                                                                                                                  PROSITE; PSO0687; ALDEHYDE DEHYDR GLU; UNKNOWN_1.
PROSITE; PSO0022; EGF 1; UNKNOWN 7.
PROSITE; PSO1023; FIBEONECTIN_1; 12.
PROSITE; PSO0023; FIBEONECTIN_2; 2.
PROSITE; PSO0853; F13.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRT; 2267 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRINTS; PROGO12; FNTYPEI.
PRINTS; PROGO13; FNTYPEII.
PRINTS; PROGO13; FNTYPEIII.
PRODOM; PDOGO95; FN_TYPE_II; 2.
SMART; SMO0059; FN1; 12.
                                                                                                                                                                                                                                                                  PRINTS; PRO0013; FNTYPEII.
ProDom; PD000995; FN Type_II; 2.
SMART; SM00058; FN1; 12.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              The German cDNA Consortium;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  48; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SMART; SM00059; FNZ; 2.
SMART; SM00060; FN3; 16.
                                                                                                                                                                                                                                                                                                                              SMART; SM00059; FN2; 2.
SMART; SM00060; FN3; 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A.
TISSUE=Uterus endothel;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2477 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Homo sapiens (Human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Hypothetical
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        640890
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 8
Q68DP9
      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
```

```
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      [3]
SEQUENCE FROM N.A.
SEQUENCE FROM N.A.
The FANTOM Consortium,
The FANTOM Consortium,
the RIKEN Genome Exploration Research Group Phase I & II Team;
the RIKEN Genome Exploration Research Group Phase I & II Team;
Manalysis of the mouse transcriptome based on functional annotation of
60,770 full-length oDNAs.";
Nature 420:563-573(2002).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A.
STRAIN=C57BL/G0; TISSUE=Ovary;
STRAIN=C57BL/G0; TISSUE=Ovary;
MEDLINE=20499374; PubMed=11042159; DOI=10.1101/gr.145100;
Carninci P., Shibata Y., Hayatsu N., Sugahara Y., Shibata K., Itoh M.,
Konno H., Okazaki Y., Muramatsu M., Hayashizaki Y.;
Mormalization and subtraction of cap-trapper-selected cDNAs to
prepare full-length cDNA libraries for rapid discovery of new genes.";
Genome Res. 10:1617-1630(2000).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.
STRAIN=C57BL/6J; TISSUE=Ovary;
MEDLINE=99279253; PubMed=10349636; DOI=10.1016/S0076-6879(99)03004-9;
Carninci P., Hayashizaki Y.;
"High-efficiency full-length cDNA cloning.";
Meth. Enzymol. 303:19-44(1999).
                                                                                                                                                                                                                                                                                                                                                                                                           01-MAR-2003 (TrEMBLrel. 23, Created)
01-MAR-2003 (TrEMBLrel. 23, Last sequence update)
01-MAR-2004 (TrEMBLrel. 26, Last annotation update)
Mus musculus 2 days pregnant adult female ovary cDNA, RIKEN full-
length enriched library, clone:E330027109 product:fibronectin 1, full
                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MEDLINE=20530913; PubMed=11076861; DOI=10.1101/gr.152600; MEDLINE=20530913; PubMed=11076861; DOI=10.1101/gr.152600; Shibata K., Itoh M., Aizawa K., Nagaoka S., Sasaki N., Carninci P., Konno H., Akiyama J., Nishi K., Kitsunai T., Tashiro H., Itoh M., Sama N., Ishii Y., Nakamura S., Hazama M., Nishine T., Harada A., Yamamoto R., Matsumoto H., Sakaguchi S., Ikegami T., Kashiwagi K., Fujiwake S., Inoue K., Togawa Y., Izawa M., Ohara E., Warchiki M., Yoneda Y., Ishikawa T., Ozawa K., Tanaka T., Matsuura S., Kawai J., Okazaki Y., Muramatsu M., Inoue Y., Kira A., Hayashizaki Y.; Rawai Y.; RIKEN integrated sequence analysis (RISA) system-384-format
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Eukaryota, Metaroa, Chordata, Craniata, Vertebrata, Euteleostomi,
Mammalia, Eutheria, Rodentia, Sciurognathi, Muridae, Murinae, Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A.
STRAIN=C57BL/6J; TISSUE=Ovary;
STRAIN=E57BL/6J; PubMed=11217851; DOI=10.1038/35055500;
MINELINE=21085660; PubMed=11217851; DOI=10.1038/35055500;
RIKEN FANTOM CONSOrtium;
"Functional annotation of a full-length mouse cDNA collection.";
Nature 409:685-690(2001).
                                                                                                                                                                                               ö
                                                                                                                                                                                                                                        49
                                                                                                                                                                                                                                                                   32 RAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNALVCTCYG 80
                                                                                                                                                 Score 267; DB 2; Length 2267;
Pred. No. 3.7e-24;
                                                                                                                                                                                                                                          1 QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYG
PROSITE; PS00687; ALDEHYDR DEHYDR GLU; UNKNOWN_1.
PROSITE; PS00022; EGF 1; UNKNOWN 2.
PROSITE; PS01223; FIBRONECTIN 1; 12.
PROSITE; PS00023; FIBRONECTIN 2; 2.
HYDOCHELICAL Protein.
SEQUENCE 2267 AA; 249358 MW; C4D124A038C323DF CRC64;
                                                                                                                                                                                               1; Indels
                                                                                                                                                                                                                                                                                                                                                                                              296 AA
                                                                                                                                                                                            1; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                              PRT;
                                                                                                                                                   97.1%;
95.9%;
```

```
Proc. Natl. Acad.
   CDNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Name=1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     <u>-</u>;
   MEDINE-2288257; PubMed=12477932; DOI=10.1073/pnas.242603899;
XRAINE-2288257; PubMed=12477932; DOI=10.1073/pnas.242603899;
Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
XA attachul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
Altschul S.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
Altschul S.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
A platchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
A platchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
A ronstein M.J. Usdin T.B., Toshiyuki S., Carninoi P., Prange C.,
A Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
A Richards S.W. Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
A Richards S.W., Muzny D.M., Sodergren B.J., Lu X., Gibbs R.A.,
A Hilalon D.K., Muzny D.M., Sodergren B.J., Lu X., Gibbs R.A.,
A Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
A Rakealey R.W., Touchman J.W., Green B.D., Dickson M.C.,
A Rakealey R.W., Touchman J.W., Green B.D., Dickson M.C.,
Butterfield Y.S.N., Krzywinski M.I., Skalksu U., Smailus D.E.,
Butterfield Y.S.N., Krzywinski M.I., Marra M.A.;
"Generation and initial analysis of more than 15,000 full-length human
                                        SEQUENCE FROM N.A.

STRAIN-CSTBL/64; TISSUB-OVARY;

A Adachi J., Aizawa K., Akimura T., Arakawa T., Bono H., Carninci P.,
Rukuda S., Furuno M., Hanagaki T., Hara A., Hashizume W.,
Hayashida K., Hayatsu N., Hiramotco K., Hiraoka T., Hirozane T.,
Hayashida K., Hayatsu N., Hiramotco K., Hiraoka T., Kasukawa T.,
Hori F., Imotani K., Ishii Y., Itoh M., Kagawa I., Kasukawa T.,
Katoh H., Kawai J., Kojima Y., Kondo S., Konno H., Kouda M., Koya S.,
Kurihara C., Matsuyama T., Miyazaki A., Murata M., Nakamura M.,
Nishi K., Nomura K., Numazaki R., Ohno M., Ohsato N., Oksato N.,
Sasaki D., Salibata K., Shinagawa A., Shiraki T., Sogabe Y., Tagami M.,
Tagawa A., Takahashi F., Takaku-Akahira S., Takeda Y., Tanaka T.,
M. Tomaru A., Toya T., Yasunishi A., Muramatsu M., Hayashizaki Y.,
Submitted (JUL-2001) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Musinae; Musingel_TaxID=10090;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      49
                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 296;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     QAQQIVQPQSPVAVSQSKPGCFDNGKHYQINQQWERTYLGNALVCTCYG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1; Indels
sequencing pipeline with 384 multicapillary sequencer.";
                                                                                                                                                                                                                                                                                                                                              PRINTS; PRODO12; FNTYPEI.
SMART; SM00058; FN1; 5.
PROSITE; PS00022; EGF 11.
PROSITE; PS01253; FIREONECTIN 1; 5.
SEQUENCE 296 AA; 32617 MW; AOFFSF4809FB6439 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       P11276; Q61567; Q61568; Q61569; Q64233; Q80U14; 01-UUL-1989 (Rel. 11, Created) 29-MRH-2004 (Rel. 43, Last sequence update) 25-OGT-2004 (Rel. 45, Last annotation update) Fibronectin precursor (FN).
                                                                                                                                                                                                                                                                                                                                                                                                                                        95.6%; Score 263; DB 2; 93.9%; Pred. No. 1.4e-24;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2477 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2; Mismatches
                                                                                                                                                                                                                                                                                     GO, GO:0005576; C:extracellular; IEA.
InterPro, IPR006209; EGF like.
InterPro, IPR000083; Fibrnctn1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRT;
                                                                                                                                                                                                                                                       EMBL; AK054456; BAC35784.1; -. HSSP; Q96KP7; 1FBR.
               Genome Res. 10:1757-1771(2000)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE OF 1-920 FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      46; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STANDARD;
                                                                                                                                                                                                                                                                                                                                    Pfam; PF00039; fn1; 5.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mus musculus (Mouse).
                                                                                                                                                                                                                                                                                                                                                                                                                                                        Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MOUSE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Name=Fn1
                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FINC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Matches
 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  엄
```

```
MEDLINE=21600965; PubMed=11737251;

MEDLINE=21600965; PubMed=11737251;

MEDLINE=21600965; PubMed=11737251;

Td uv.-C., Talts J.F., Gullberg D., Timpl R., Ekblom M.;

Td uv.-C., Talts J.F., Gullberg D., Timpl R., Ekblom M.;

Timbronectin, fibulin-1 and fibulin-2 in bone marrow stroma.";

Eur. J. Haematol. 67:176-184(2001).

To luding collagen, fibrin, heparin, DNA, and actin. Fibronectins are involved in cell adhesion, cell motility, opsonization, wound healing, and maintenance of cell shape.

C. -!- SUBUNIT: Mostly heterodimers or multimers of alternatively spliced variants, connected by 2 disulfide bonds near the carboxyl ends;

C. O. SUBJUNITIES OF CONNECTED STREET ON CONNECTED STREET OF CONNECT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Talts J.F., Weller A., Timpl R., Ekblom M., Ekblom P., "Regulation of mesenchymal extracellular matrix protein synthesis by transforming growth factor-beta and glucocorticoids in tumor stroma."; J. Cell Sci. 108:2153-2162(1995).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                STRUCTURE BY NWR OF 1447-1630.
MEDLINE-98202578; PubMed=9533887; DOI=10.1006/jmbi.1998.1616;
GODIE V. Tomita Y., Akiyama S.K., Acta S., Yamada K.M., Venable R.M.,
Pastor R.W., Krueger S., Torchia D.A.;
"Solution structure and dynamics of linked cell attachment modules of
mouse fibronectin containing the RGD and synergy regions: comparison
with the human fibronectin crystal structure.";
J., Mol. Biol. 277:663-682(1998).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    οĘ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          IsoId=P11276-1; Sequence=Displayed;
TISSUE SPECIFICITY: Plasma FN (soluble dimeric form) is secreted by hepatocytes. Cellular FN (dimeric or cross-linked multimeric forms), made by fibroblasts, epithelial and other cell types, is deposited as fibrils in the extracellular matrix.
INDUCTION: Glucocorticoids suppressed mRNA expression and protein
                                                                                                                                                                                                                                                                                                                                                                                 Polly P., Nicholson R.C.; "Sequence of the mouse fibronectin-encoding gene promoter region."; Gene 137:353-354(1993).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Event=Alternative splicing; Named isoforms=1;
Comment=A number of isoforms are produced. Each of the "extra
domain" and the connecting strand 3 are present in some forms
fibronectin and absent in others;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TISSUE=Kidney;
MEDLINE=93011702; PubMed=1327855;
Khandjian E.W., Salomon C., Leonard N., Tremblay S., Turler H.;
"Fibronectin gene expression in proliferating, quiescent, and SV40-
infected mouse kidney cells.";
                                                                                                                                                                                                                                                                                                                     MEDLINE=94131313; PubMed=8299972; DOI=10.1016/0378-1119(93)90036-3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MEDLINE-88124987; PubMed-3124113;
Blatti S.P., Foster D.N., Ranganthan G., Moses H.L., Getz M.J.;
"Induction of fibronectin gene transcription and mRNA is a primary
response to growth-factor stimulation of AKR-2B cells.";
Proc. Natl. Acad. Sci. U.S.A. 85:1119-1123(1988).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SUBCELLULAR LOCATION: Secreted, extracellular matrix. ALTERNATIVE PRODUCTS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gorski G., Aros M., Norton P.;
Submitted (DEC-1995) to the EMBL/GenBank/DDBJ databases
sequences.";
ad. Sci. U.S.A. 99:16899-16903(2002)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MEDLINE=95403556; PubMed=7673336;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Cell Res. 202:464-470(1992)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE OF 2375-2477 FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE OF 2375-2477 FROM N.A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE OF 899-2376 FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE OF 562-834 FROM N.A. STRAIN=NMRI;
                                                                                                                                                                                     SEQUENCE OF 1-28 FROM N.A.
```

8

```
TISSUBLE ANY GOLD OF THE CHARACTER OF THE GERMAN CONSORTIUM;

A Ottenwaelder B., Obermaier B., Deutschenbaur S., Schaipp A.,

A Mewes H.W., Well B., Amid C., Osanger A., Fobo G., Han M., Wiemann S.;

Submitted (AUG-2004) to the EMBL/GenBank/DDBJ databases.

R EMBL; CR44317; CAH18172.1; -.

R InterPro; IPR0002086; Aldehyd dehydrog.

R InterPro; IPR0002086; Pibrnctnl.

R InterPro; IPR000395; FNIII subd.

R InterPro; IPR0003961; FNIII subd.

R Pfam; PF000409; fn1; 12.

R Pfam; PF000401; fn2; 2.

R Pfam; PF00041; fn3; 15.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                             domain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Name=DKF2D686H0342;
Homo sapiens Action of Control of C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         49
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 2477;
                                                                                                                          (extra
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Fibronectin type-III 9.
Fibronectin type-III 10.
Fibronectin type-III 11.
Fibronectin type-III 13.
Fibronectin type-III 14.
Fibronectin type-III 14.
Fibronectin type-III 16.
Connecting strand 3 (CS-3) (V
Fibronectin type-III 17.
Fibronectin type-II 17.
Fibronectin type-II 17.
Fibronectin type-I 12.
Cell attachment site.
By similarity.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 263; DB 1; Lengtn care Pred. No. 1.3e-23;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRIMTS; PRO0012; FWTYPEI.
PRINTS; PR00013; FWTYPEII.
PRINTS; PR00014; FWTYPEII.
PRODOM; PD000095; FN TYPEII.
SWART; SW00059; FN TYPEII.
SWART; SW00065; FN1; 12.
SWART; SW00065; FN3; 12.
PROSITE; PS00687; ALDEHYDE DEHYDR GLU; UNKNOWN_I.
PROSITE; PS01022; PSER 1; UNKNOWN_Z.
PROSITE; PS01023; FIBRONECTIN 1; 10.
PROSITE; PS01023; FIBRONECTIN 2; 2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Last sequence update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRT; 2240 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      $5-0CT-2004 (TrEMBLrel. 28, Created 25-0CT-2004 (TrEMBLrel. 28, Last st 25-0CT-2004 (TrEMBLrel. 28, Last at Hypothetical protein DKFZp686H0342.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           95.6%;
93.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  46; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRELIMINARY;
         Best Local Similarity
Matches 46; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.
      1356
1447
1537
1631
1721
1903
1992
21990
2294
22394
23394
2181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DISULFID
DISULFID
DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                   SITE
DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
      DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Q68DP8;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     девръв
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 11
068DP8
AC 068DP9
DT 25-0C
DT 25-0C
DT 25-0C
DT 25-0C
DT 25-0C
DE Hypori
DE Hypori
COC Bukar
OOC 
         a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠ
                                                                                                                                                                       This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation - the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (extra domain 1).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3D-structure, Acute phase, Alternative splicing, Cell adhesion,
Glycoprotein, Heparin-binding, Phosphorylation, Plasma, Repeat,
                                                                                                                                                                                                                                                                                                                                                                                                                                  EMBL; Z22729; CAA57796.1; -.

EMBL; X22729; CAA57796.1; -.

EMBL; X3167; CAA53664.1; -.

EMBL; X9167; CAA53664.1; -.

EMBL; S45680; AAB23491.1; -.

EMBL; S45680; AAB23491.1; -.

R PIR; A49173; A49173.

R PDB; IMFN; NMR; ©=1446-1630.

R PDB; ZMFN; NMR; ©=1446-1630.

R GO; GO:0007155; P:cell adhesion; IDA.

GO; GO:0007155; P:cell adhesion; IDA.

GO; GO:0007155; P:cell adhesion; IDA.

GO; GO:0007155; P:cell adhesion; IMP.
   synthesis.
--- PTM: Sulfated (By similarity).
--- SIMILARITY: Contains 12 fibronectin type I domains.
--- SIMILARITY: Contains 2 fibronectin type II domains.
--- SIMILARITY: Contains 17 fibronectin type III domains.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       By similarity.
Fibronectin.
Fibrin- and heparin-binding
Collagen-binding.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Fibronectin type-1 1.
Fibronectin type-1 2.
Fibronectin type-1 3.
Fibronectin type-1 4.
Fibronectin type-1 5.
Fibronectin type-1 6.
Fibronectin type-1 1.
Fibronectin type-1 1.
Fibronectin type-1 7.
Fibronectin type-1 7.
Fibronectin type-1 9.
Fibronectin type-1 11 2.
Fibronectin type-1 11 3.
Fibronectin type-1 3.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Heparin-binding
Fibrin-binding 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRINTS; PRO0014; FNTYPEIII.
Prodom; PD000995; FN Type II; 2.
PROSITE; PS001253; EGF I; 2.
PROSITE; PS01253; FIBRONECTIN I; 12.
PROSITE; PS00023; FIBRONECTIN Z; 2.
PROSITE; PS50853; FN3; 17.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                InterPro; IPR006209; EGF like.
InterPro; IPR00083; Fibrnctnl.
InterPro; IPR003962; FIII subd.
InterPro; IPR003961; FN III.
InterPro; IPR008957; FN III.
InterPro; IPR006957; FN III.
Pfam; PF00049; fnl; 12.
Pfam; PF00040; fnl; 12.
Pfam; PF00041; fnl; 17.
                                                                                                                                                                                                                                                                                                                                                                                                          EMBL; BC051082; AAH51082.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       32
2477
273
273
608
11171
1630
2081
2427
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Signal; Sulfation.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DOMAIN
DOMAIN
DNA BIND
DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DOMAIN
```

ö

```
CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SIGNAL
                                                                   ++
                         -
  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             complex in rat plasma.";
Biochhem. J. 301.745-751(1994).
-!- FUNCTION: Pibronectins bind cell surfaces and various compounds
including collagen, fibrin, heparin, DNA, and actin. Fibronectins
                                                                                                                                                                                                                                              Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
Mammalia; Butheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Odermatt E., Tamkun J.W., Hynes R.O.;
"Repeating modular structure of the fibronectin gene: relationship to procein structure and subunit variation.";
Proc. Natl. Acad. Sci. U.S.A. 82:6571-6575(1985).
                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Isolation and characterization of fibronectin-alpha 1-microglobulin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE OF 1183-1192; 1385-1399 AND 2287-2300, AND INTERACTION WITH
                                                                                                                                                                                                                                                                                                                MEDLINE-88054951; PubMed=2445560;
Scwarzbauer J.E., Patel R.S., Fonda D., Hynes R.O.;
"Multiple sites of alternative splicing of the rat fibronectin gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE OF 1586-2477 FROM N.A. MEDILINES 40092-8674 (83) 90175-7; MEDLINES 4082067; PubMed=6317187; DOI=10.1016/0092-8674 (83) 90175-7; SCHWARDSHORT J.E., Tamkun J.W., Lemischka I.R., Hynes R.O.; "Three different fibronectin mRNAs arise by alternative splicing
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ģ
                                                                                                                                                                                                                                                                                                                                                                                                                   Patel R.S., Odermatt E., Schwarzbauer J.E., Hynes R.O.; "Organization of the fibronectin gene provides evidence for exon shuffling during evolution."; EMBO J. 6:2565-2572(1987).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Tamkun J.W., Schwarzbauer J.E., Hynes R.O.;
"A single rat fibronectin gene generates three different mRNAs
alternative splicing of a complex exon.";
Proc. Natl. Acad. Sci. U.S.A. 81:5140-5144(1984).
                                                       ;
0
                                                                             49
                                                                                                  80
                                  Length 2240;
                                                                                         32 QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTNLGNALVCTCYG
                                                                             1 QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE OF 1722-1810 FROM N.A., AND ALTERNATIVE SPLICING
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE OF 2052-2237 FROM N.A., AND ALTERNATIVE SPLICING PubMed=6089177;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PubMed=7519849;
Falkenberg C., Enghild J.J., Thogersen I.B., Salvesen G.,
Akerstrom B.,
                                                       Indels
 al protein.
2240 AA; 246667 MW; 8FCDAF406F330621 CRC64;
                      Score 262; DB 2; Le
Pred. No. 1.5e-23;
                                                                                                                                                                 P04937; QGLDX9;
13.AUG-1987 (Rel. 05, Created)
01-NOV-1990 (Rel. 16, Last sequence update)
Fibronectin precursor (FN).
                                                                                                                                                          Z
                                                       0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE OF 1-139 AND 2382-2477 FROM N.A.
                                                                                                                                                        PRT;
                                                                                                                                                                                                                                                                                                                                                                                            STRAIN=Fischer; TISSUE=Liver;
MEDLINE=88054950; PubMed=3119323;
                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A.
STRAIN=Fischer; TISSUE=Liver;
                                 95.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    within the coding region.";
Cell 35:421-431(1983).
                                                                                                                                                                                                                                                                                                                                                              EMBO J. 6:2573-2580(1987).
                         Query Match
Best Local Similarity 95.99
                                                                                                                                                         STANDARD;
                                                                                                                                                                                                                                      Rattus norvegicus (Rat).
                                                                                                                                                                                                                                                                       NCBI_TaxID=10116;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PubMed=3863113;
Hypothetical
SEQUENCE 22
                                                                                                                                                                                                                            Name=Fn1;
                                                                                                                                                         FINC RAT
                                                                                                                                                                    S &
                                                                               Š
                                                                                                 d
```

```
rest involved in cell adhesion. Cell mortility, opeonization, wound be alterating and matternance of cell shape.

1. SUBDATT whenly herecachiaers or multimare of alteratively spliced to a lesser stand hoodings. Interacts with Febal, Ambe and cell alterative connected by 2 disallide bonds near the carboxyl and; connected by 2 disallide bonds near the carboxyl and; connected by 2 disallide bonds near the carboxyl and; connected by 2 disallide bonds near the carboxyl and; connected by 2 disallide bonds near the carboxyl and; connected by 2 disallide bonds near the carboxyl and; connected by 2 disallide bonds near the carboxyl and; connected by 2 disallide bonds near the carboxyl and; connected by 2 disallide bonds near the connecting strand 3 are zero present in some forms of fibrometrin and the connecting strand 3 man=1, promyman=NTL13.12eng conserved.

Name=1, Synonyman=NTL13.12eng conserved.

Name=1
```

```
This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Insold=P07589-1; Sequence=Displayed;
-1-TISSUE SPECIFICITY: Plasma FN (soluble dimeric form) is secreted by heperocytes. Cellular FN (dimeric or cross-linked multimeric forms), made by fibrolaste, epithelial and other cell types, is deposited as fibrils in the extracellular matrix.
-1- PTW: Sulfaced (By similarity).
-1- SIMILARITY: Contains 12 fibronectin type II domains.
-1- SIMILARITY: Contains 15 fibronectin type III domains.
-1- SIMILARITY: Contains 15 fibronectin type III domains.
                                                                                                                                                                                                                                                                                                                                         PARTIAL SEQUENCE.
MEDLINE-83117805; PubMed-6218503;
Petersen T.E., Thorgersen H.C., Skorstengaard K., Vibe-Pedersen K.,
Sattrup-Jensens L., Magnusson S.;
"Partial primary structure of bovine plasma fibronectin: three types
                                                                                                                                                                                                                                                                                 Korstengaard K., Jensen M.S., Sahl P., Petersen T.E., Magnusson S.,
Complete primary structure of bovine plasma fibronectin.",
Sur. J. Biochem. 161:441-453(1986).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            the "extra
some forms
                                                                                                                                                                                                                                                                                                                                                                                                                                  [3]
SEQUENCE OF 2170-2265 FROM N.A.
MEDLINE=83221567; PubMed=6304699;
KORTHDLINE+A.R., Vibe-Pedersen K., Baralle F.E.;
"Isolation and characterization of cDNA clones for human and bovine
                                                                                                                                                                                              Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Mammalia, Eutheria, Cetartiodactyla, Ruminantia, Pecora, Bovidae,
 49
                           87
                33 QAQQIVQPPSPVAVSQSKPGCFDNGKHYQINQQWERTYLGNALVCTCYG
  1 QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Event=Alternative splicing; Named isoforms=1;
Comment=A number of isoforms are produced. Each of
Gomain" and the connecting strand 3 are present in
fibronectin and absent in others;
                                                                                                                                                                                                                                                                                                                                                                                                           of internal homology.";
Proc. Natl. Acad. Sci. U.S.A. 80:137-141(1983)
                                                                                                                             Last sequence update)
Last annotation update)
                                                                                        Ş
                                                                                                                                                                                                                                                           SEQUENCE.
MEDLINE=87054047; PubMed=3780752;
                                                                                                                 Created)
                                                                                        STANDARD;
                                                                                                                (Rel. 07, (Rel. 28, I
                                                                                                                                                                                Bos taurus (Bovine)
                                                                                                                                                         Fibronectin (FN).
                                                                                                                                                                                                                                                                                       Skorstengaard K.,
                                                                                                                                                                                                                                 NCBI TaxID=9913;
                                                                                                                                                                                                                        Bovinae; Bos
                                                                                                                 01-APR-1988
                                                                                      FINC BOVIN
P07589;
                                                                                                                             01-FEB-1994
05-JUL-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Name=1
                                                                                                                                                                     Name=FN1;
                                                                RESULT 13
FINC BOVIN
                         a
                                                                                                       ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                      (extra domain 1)
                                                                                                                                                                                                                                                                                                                                                                      (extra domain
                                                                                                                                                                                                                                                                                                                                                                                                                         region)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 257; DB 1; Length 2477; Pred. No. 7.2e-23; 2; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                       2
                                                          Fibronectin type-I 1.
Fibronectin type-I 2.
Fibronectin type-I 3.
Fibronectin type-I 3.
Fibronectin type-I 6.
Fibronectin type-I 1.
Fibronectin type-II 7.
Fibronectin type-II 7.
Fibronectin type-II 1.
Fibronectin type-II 3.
Fibronectin type-III 3.
Fibronectin type-III 3.
Fibronectin type-III 4.
Fibronectin type-III 6.
Fibronectin type-III 6.
Fibronectin type-III 10.
Fibronectin type-III 11.
Fibronectin type-III 17.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Interchain (with C-2462).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Cell attachment site.

Gell attachment site.

By similarity.

By similarity.
  Collagen-binding
                                       Heparin-binding
Fibrin-binding 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  93.5%;
91.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
                                                                                                                                                                                                                                                             2335
2335
2368
2378
2409
2423
2458
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Best Local Similarity
Matches 45; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                              2339
2383
1614
2181
DOMAIN
DNA BIND
DOMAIN
DOMAIN
DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DISULFID
DISULFID
DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DISULFID
DISULFID
DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DISULPID
DISULPID
DISULPID
DISULPID
DISULPID
DISULPID
DISULPID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DISULFID
DISULFID
DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SITE
SITE
DISULFID
DISULFID
DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                  DOMAIN
DOMAIN
DOMAIN
DOMAIN
                                                              DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                           DOMAIN
                                                                                          DOMAIN
                                                                                                     DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                 DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                DOMAIN
```

ŏ

EMBL; K00800; AAA30521.2; -.

```
Interchain (with C-2246).
Sulfotyrosine (Potential).
Sulfotyrosine (Potential).
N-linked (GlCNAC...).
O-linked (GalNAC...).
Plinked (GalNAC...).
O-linked (GalNAC...).
Plinked (GalNAC...).
Plinked (GalNAC...).
Plinked (GalNAC...).
                                                                                                                                                                                                                                                           MW; C2D21D486F498D5C CRC64;
                                                                                                                                       Interchain (with C-2250)
                                                                                                                                                                                                                                                                          Score 255; DB 1;
Pred. No. 1.2e-22;
3; Mismatches 2;
                                                                                                                                                                                                                                                                           92.7%;
89.8%;
                                                                                                                                                                                                                                                           249557
                                                                                                                                                                                                                                                                                             Conservative
                                                                                                                                                                                                                                                                                                                                                                        STANDARD;
                                                                                    2114
2124
2125
2167
2200
2200
2246
2250
845
850
850
850
850
                                                                                                                                                                                                                                                            A;
                                                                                                                                                                                                                                                                                    Similarity
                                                                                             2112
2130
2130
2155
2174
2198
2246
2250
845
850
850
497
                                                                                                                                                                                                                                                                              Ma.
Local Sim.
44;
                                                                                                                                                                                                                                                                                                                                                                        FINC XENLA
Q91740;
DISULFID
DISULFID
DISULFID
                                                          DISULFID
DISULFID
DISULFID
                                                                                                                                                                                                                                                                                                              н
                        DISULFID
                                                                                                                                                                                                                 CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                                   MOD RES
SEQUENCE
                                                                                             DISULFID
                                                                                                                      DISULFID
                                                                                                                                                                       CARBOHYD
                                                                                                                                                                                                                                                                            Query Match
                                          DISULFID
                                                  DISULFID
                                                                                    DISULFID
                                                                                                             DISULFID
                                                                                                                                       DISULFID
                                                                                                                                               DISULFID
                                                                                                                                                       MOD_RES
MOD_RES
                                                                                                                                                                                 CARBOHYD
                                                                                                                                                                                         CARBOHYD
                                                                                                                                                                                                 CARBOHYD
                                                                                                                                                                                                           CARBOHYD
                                                                                                                                                                                                                                                                                                                                                       RESULT 14
FINC_XENLA
                                                                                                                                                                                                                                                                                     Best Loc
Matches
 셤
                                                                                                                                                                                                                                                                                                                                                                         8
                                                                                                                                                                                                                                                     ribronectin type 1.
Fibronectin type 1.
                                                                                                                                                               Acute phase, Alternative splicing, Cell adhesion, Cell shape, Direct protein sequencing; Glycoprotein, Heparin-binding; Phosphorylation; Plasma, Pyrrolidone carboxylic acid; Repeat, Sulfation.
                                                                                                                                                                                                 Pyrrolidone carboxylic acid. Fibrin- and heparin-binding 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Cell attachment site
                                                                                                                                                                                                                                           Heparin-binding 2.
                                                                                                                                                                                                                  Collagen-binding.
                                                                                                                                                                                                                                   Cell-attachment
                                                                                                                                                                                                                                                   Fibrin-binding
    HSSP, P00323; IRSO.

INTERPRO; IPR006209; EGF_like.

INTERPRO; IPR006209; EGF_like.

INTERPRO; IPR0013961; FN III.

INTERPRO; IPR0013961; FN III.

INTERPRO; IPR0013962; FN TYPE II.

INTERPRO; IPR0013962; FN TYPE II.

INTERPRO; IPR00139; EN1; 12.

PEAM; PF00041; FN1; 12.

PRMINTS; PR00012; FNTYPEII.

PRINTS; PR00013; FNTYPEII.

PROSITE; PS00023; EGF_1; Z.

PROSITE; PS00023; EGF_1; Z.

PROSITE; PS00023; FIBROWECTIN 1; 12.

PROSITE; PS00023; FIBROWECTIN 2; Z.

PROSITE; PS00023; FIBROWECTIN 2; Z.

PROSITE; PS00023; FIBROWECTIN 2; Z.
                                                                                                                                                                                                         1990
2069
2127
2170
2215
1495
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      56
94
104
138
                                                                                                                                                                                                                                                                                                                                                                                                 1056
11235
1235
1326
1416
1510
1602
1692
1781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2083
2128
2172
1493
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DISULFID
DISULFID
DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DISULPID
DISULPID
DISULPID
DISULPID
DISULPID
                                                                                                                                                                                                                 DOMAIN
DNA_BIND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DISULFID
                                                                                                                                                                                                 MOD RES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DOMAIN
DOMAIN
DOMAIN
DOMAIN
                                                                                                                                                                                                          DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DOMAIN
                                                                                                                                                                                                                                                                                                                                                        DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DOMAIN
                                                                                                                                                                                                                                                    DOMAIN
                                                                                                                                                                                                                                                            DOMAIN
                                                                                                                                                                                                                                                                                                                       DOMAIN
```

```
RP SEQUENCE FROM N.A.

RR A BEDINE=92111942; PubMed=1730390;
RA MEDLINE=92111942; PubMed=1730390;
RA Desimone D.W., Norton P.A., Hynes R.O.;
RT "Identification and characterization of alternatively spliced fibronectin mRNAs expressed in early Kenopus embryos.";
RI FUNCTION: Fibronectins bind cell surfaces and various compounds CC including collagen, fibrin, heparin, DNA, and actin. Fibronectins are involved in cell adhesion, cell motility, opsonization, wound CC healing, and maintenance of cell shape (By similarity).

CC -1- SUBUNIT: Dimers or multimers of alternatively spliced variants, connected by 2 disulfide bonds near the carboxyl ends (By anilarity). CC -1- not the "extra of the "extra o
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     similarity).
ALTERNATIVE PRODUCTS:
Event-Alternative splicing; Named isoforms=1;
Comment.A. number of isoforms are produced. Each of the "extra domain" and the connecting strand 3 are present in some forms of
Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Name=FN1;
Xenopus laevis (African clawed frog).
Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
Amphibia; Batrachia; Anura; Mesobatrachia; Pipoidea; Pipidae;
Xenopodinae; Xenopus.
ö
                                                                                                             QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYG 49
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    01-NOV-1997 (Rel. 35, Created)
01-NOV-1997 (Rel. 35, Last sequence update)
01-LUL-2004 (Rel. 44, Last annotation update)
Fibronectin precursor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRT; 2481 AA
```

```
Bý similaritý.
Interchain (with C-2463) (By similarity)
Interchain (with C-2459) (By similarity)
N-linked (GlCNAC. ..) (Potential).
N-linked (GlCNAC. ..) (Potential).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
  type-III 16.
trand 3 (CS-3) (V region).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Xenòpus laevis (African clawed frog).
Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Amphibia, Batrachia, Anura, Mesobatrachia, Pipoidea, Pipidae,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (Potential). (Potential). (Potential).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (Potential) (Potential) (Potential)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   5;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 IISSUE=Embryo;
MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;
Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               49
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 194; DB 1; Length 2481;
Pred. No. 5.5e-15;
3; Mismatches 9; Indels ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Fibronectin type-III 17.
Fibronectin type-II 10.
Fibronectin type-II 10.
Fibronectin type-II 11.
Fibronectin type-II 11.
Fibronectin type-II 11.
Fibronectin type-II 12.
Cell attachment site.
By similarity.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       05-JUL-2004 (TrEMBLrel. 27, Last sequence update) 05-JUL-2004 (TrEMBLrel. 27, Last annotation update) Fibronectin protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            7E47DF4F6CE72C93
                strand 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (GlcNAc. . . (GlcNAc. . . (GlcNAc. . . (GlcNAc. . .
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (GlcNAc.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (GlcNAc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRT; 2481 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       N-linked
N-linked
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      / Match
Local Similarity 71.4%;
nes 35; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            272678
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            05-JUL-2004 (TrEMBLrel. 27,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRELIMINARY;
  23330
23330
23340
23343
2414
2459
2459
2463
529
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Xenopodinae, Xenopus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Name=fibronectin;
                                                                                                                                                                                                                                                                                                                                                                                                            2328
2346
2371
2390
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2412
2459
2463
431
529
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NCBI_TaxID=8355
                                                                                                             DISULFID
DISULFID
DISULFID
                                                                                                                                                      DISULFID
                                                                                                                                                                                 DISULFID
DISULFID
DISULFID
                                                                                                                                                                                                                          DISULFID
                                                                                                                                                                                                                                                                                 DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           37
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             OGGQAS
ID QGGQAS
AC QGGQAS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
                                                                                                DISULFID
                                                                                                                                                                                                                                                     DISULFID
                                                                                                                                                                                                                                                                     DISULFID
                                                                                                                                                                                                                                                                                                             DISULFID
                                                                                                                                                                                                                                                                                                                                          DISULFID
                                                                                                                                                                                                                                                                                                                                                      DISULFID
                                                                                                                                                                                                                                                                                                                                                                                  DISULPID
                                                                                                                                                                                                                                                                                                                                                                                                  DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                              DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                              DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                         DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                        DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE
DOMAIN
DOMAIN
DOMAIN
DOMAIN
DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 15
  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                        Insoid=091740-1; Sequence=Displayed;
-!- TISSUE SPECIFICITY: In early Xenopus embryo, cellular forms of fibronectin predominate which include both extra domains. In fibronectin of embryonic and adult liver the connecting strand can be either completely excluded or included.
-!- SIMILARITY: Contains 12 fibronectin type I domains.
-!- SIMILARITY: Contains 2 fibronectin type III domains.
-!- SIMILARITY: Contains 17 fibronectin type III domains.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (extra domain)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (extra domain)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Acute phase; Alternative splicing; Cell adhesion; Glycoprotein;
Heparin-binding; Plasma; Repeat; Signal.
SIGNAL 1 31 Potential.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Fibronectin.
Fibrin- and heparin-binding Collagen-binding.
By similarity.
Cell-attachment.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Fibronectin type-I 1.
Fibronectin type-I 2.
Fibronectin type-I 3.
Fibronectin type-I 5.
Fibronectin type-I 5.
Fibronectin type-I 6.
Fibronectin type-I 1 1.
Fibronectin type-II 2.
Fibronectin type-II 2.
Fibronectin type-II 7.
Fibronectin type-I 7.
Fibronectin type-I 9.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Heparin-binding
Fibrin-binding 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Fibronectin t
Fibronectin t
Fibronectin t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Fibronectin t
Fibronectin t
Fibronectin t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Fibronectin
Fibronectin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Fibronectin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Fibronectin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Fibronectin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Fibronectin
 fibronectin and absent in others;
                                                                                                                                                                                                                                                                                          InterPro; 1PR006209; EGF like.
InterPro; IPR000083; Fibrnctn1.
InterPro; IPR000083; Fibrnctn1.
InterPro; IPR000895; FN III-like.
InterPro; IPR0008562; FN III-like.
InterPro; IPR0008562; FN TYPE II.
Pfam; PF000041; fn1; 12.
Pfam; PF000041; fn2; 17.
PRINTS; PR00013; FNTYPEII.
SMART; SM00059; FNI TYPE II; 2.
SMART; SM00059; FNI 12.
SMART; SM00069; FNI; 12.
SMART; SM00069; FNI; 12.
PROSITE; PS00022; EGF I; 2.
PROSITE; PS00022; EGF I; 2.
PROSITE; PS01253; FIBROMECTIN I; 11.
                                                                                                                                                                                                                                                                    EMBL; M77820; AAA49707.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2481
275
609
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1265
1356
1447
1537
1627
1721
1721
1901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            11172
1631
2082
2432
2432
93
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  172
                                                                                                                                                                                                                                                                                 P08253; 1J7M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            907
1358
1812
2301
                Name=1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DOMAIN
DOMAIN
DNA BIND
DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CHAIN
```

٠. ن

```
Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,
Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
Villalon D.K., Muzny D.M., Sodergren B.J., Lu X., Gibbs R.A.,
Rahey J., Helton E., Ketteman M., Madan A., Rodrigues S., Sanchez A.,
Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
Raksley R.W., Touchman J.W., Green E.D., Dickson M.C.,
Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M., Butterfield Y.S.,
Krzywinski M.I., Skalska U., Smailus D.E., Schmerch A., Schein J.E.,
Annara M.A.;
Rodeneration and initial analysis of more than 15,000 full-length human
                                                                                                                                                                                                                                                                                                                                                                                                                                        MEDLINE=22341132; PubMed=12454917; DOI=10.1002/dvdy.10174; Klein S.L., Strausberg R.L., Wagner L., Pontius J., Clifton S.W., Richardson P.; Richardson P.; "Genetic and genomic tools for Xenopus research: The NIH Xenopus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 2481;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SMART; SMO0059; FN2; 2.
SMART; SM00059; FN2; 2.
SMART; SM00060; FN3; 17.
PROSITE; PS00022; EGF 1; UNKNOWN 2.
PROSITE; PS00023; FIBEONECTIN 1; 11.
PROSITE; PS50853; FN3; 17.
PROSITE; PS00678; WD REPEATS 1; UNKNOWN 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match 70.5%; Score 194; DB 2; Length 246 Best Local Similarity 71.4%; Pred. No. 5.5e-15; Matches 35; Conservative 3; Mismatches 9; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Klein S., Strausberg R.;
Submitted (JUN-2004) to the EMBL/GenBank/DDBJ databases.
EMBL; BC072841; AAH72841.1; -.
                                                                                                                                                                                                                                                                                                                                          and mouse cDNA sequences.";
Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GO; GO:0005576; C:extracellular; IEA.
InterPro; IPR006209; EGF_like.
InterPro; IPR000083; Fibrnctn1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        InterPro; IPR003961; FW_III.
InterPro; IPR008957; FW_III-like.
InterPro; IPR001662; FW_Type_II.
InterPro; IPR001680; WD40.
Pfam; PP00040; fn2; 2.
Pfam; PF00040; fn2; 2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRINTS; PRO0013; FNTYPEII.
ProDom; PD000995; FN_TYPe_II; 2.
SMART; SM00058; FN1; 12.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Dev. Dyn. 225:384-391(2002).
                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TISSUE=Embryo;
                                                                                                                                                                                                                                                                                                                                                                                                                          TISSUE=Embryo;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          initiative.
```

1 QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQMERTYLGNVLVCTCYG 49 ò g

1;

Gaps

7

Search completed: September 30, 2005, 13:37:56 Job time : 36.4502 secs

```
Sequence 1, Applipatent No. 5455158
Patent No. 5455158
Sequence 12, Applipatent C. Applipatent C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           42323, A
19263, A
9960, Ap
4, Appli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 16, App]
                                                                                                                                          .5; Search time 6.30225 Seconds (without alignments) 580.396 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                     275
1 QAQMYQPQSPVAVSQSKPG.....INQQWERTYLGNVLVCTCYG(49
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 1,
Sequence 1,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Description
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 2
Sequence 1
Sequence 1
Sequence 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence Sequence 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1: /cgn2_6/ptodata/1/iaa/5A_COMB.pep:*
2: /cgn2_6/ptodata/1/iaa/5B_COMB.pep:*
3: /cgn2_6/ptodata/1/iaa/6A_COMB.pep:*
/cgn2_6/ptodata/1/iaa/6B_COMB.pep:*
5: /cgn2_6/ptodata/1/iaa/PCTUS_COMB.pep:*
6: /cgn2_6/ptodata/1/iaa/PCTUS_COMB.pep:*
GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          5455158-1

5455158-1

US-08-016-366A-12

US-08-051-356-2

US-08-951-403-1

US-08-951-403-1

US-08-134-4498-14

US-08-134-14498-14

US-08-134-12-1

US-08-136-12-7

US-08-136-12-7

US-08-136-12-7

US-08-136-13-7

US-08-982-597A-17

US-08-982-597A-17

US-08-982-597A-17

US-09-136-218-22

US-09-270-767-57611

US-09-270-767-57611

US-09-248-796A-19263

US-09-248-796A-19263

US-09-948-365-9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US-08-153-799-16
US-08-283-857-1
PCT-US95-09819-1
                                                                                                                                                                                                                                                                                                                                                                                                                       513545 segs, 74649064 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SUMMARIES
                                                                                                                                             September 30, 2005, 08:57:15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Post-processing: Minimum Match 08
Maximum Match 1008
Listing first 45 summaries
                                                                                              OM protein - protein search, using sw model
                                                                                                                                                                                                                                           US-09-492-971B-15_COPY_4_52
                                                                                                                                                                                                                                                                                                                                              BLOSUM62
Gapop 10.0 , Gapext 0.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Issued Patents AA:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Minimum DB seq length: 0
Maximum DB seq length: 200000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query
Match Length DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          100.0
100.0
100.0
100.0
                                                                                                                                                                                                                                                                     Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score
                                                                                                                                                                                                                                                                                            Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                       Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Database
                                                                                                                                               Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Result
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Š.
```

		מפלתפווכנ	2, APP1.
587 2	US-08-871-266B-18	Sequence	18, App.
587 2	US-09-018-864A-18	Seguence	_
387 3	US-08-871-267B-24	Sequence	24, App
587 3	US-09-618-419-24	Sequence	24, App
593 4	US-09-949-016-7031	Sequence	7031, Ag
272 2	US-08-160-524A-7	Sequence	7, A
44 1	US-08-340-812-6	Seguence	6, A
44 1	US-08-459-064B-6	Sequence	6, Appl:
44 2	US-08-460-421A-6	Sequence	6, Appl:
44 5	PCT-US93-00909-6	Sequence	
5405 3	US-08-718-388-9	Seguence	9, Appl
10 1	US-08-466-033-183	Sequence	183,
2910 2	US-08-444-733-183	Sequence	183,
	US-08-464-134-183	Sequence	183,
	US-08-461-361-183	Sequence	183,
	US-08-485-910-183	Seguence	183,
	PCT-US95-06266-157	Seguence	157,
		•	
587 2 587 3 587 3 587 3 589 4 644 1 644 2 5810 1 5810 2 5910 2 5910 5 5910 5 5910 5	US-09-018-664A-18 US-08-611-26712-24 US-09-949-016-703 US-08-140-61-703 US-08-140-612-6 US-08-459-064B-6 US-08-460-421A-6 US-08-460-431A-6 US-08-464-131-183 US-08-464-131-183 US-08-464-131-183 US-08-461-361-183 US-08-461-361-183 US-08-461-361-183 US-08-461-361-183	A-18 18-24 18-24 1031 1031 1033 1033 1033 1033 1033 103	23 mm mm m m 4 8 8 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2

ALIGNMENTS

בקה ביה היה היה בים בים בים בים

FILING DATE:
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/847975
FILING DATE: 06-MAR-1992
RIOR APPLICATION DATA:
APPLICATION NUMBER: GB 8909916.2
FILING DATE: 29-APR-1989
FILING DATE: 29-APR-1990
FILING DATE: 26-APR-1990
FILING DATE: 26-APR-1990
FILING DATE: 29-OCT-1991
ATTORNEY/AGENT INFORMATION:
NAME: SWOPE, R Hain
REGISTRATION NUMBER: 24864
REFERRINCE/DOCKET NUMBER: 92H812
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION INFORMATION INFORMATION INFORMATION INFORMATION INFORMATION IN

TELEX: 219484 INFORMATION FOR SEQ ID NO: 16: SEQUENCE CHARACTERISTICS:

: 2231 amino acids amino acid

LENGIH:

TYPE: amino acid TOPOLOGY: linear

```
1 QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYG 49
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LENGTH:
                                                                                                                                                                                                                                                                    APPLICANT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 4
                                                                                                                RESULT 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠ
셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 1, Application US/08283857
Patent No. 5/92742
Patent No. 5/92
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              100.0%; Score 275; DB 1; Length 2324; ilarity 100.0%; Pred. No. 5.1e-27; Conservative 0; Mismatches 0; Indels 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYG 49
                                                                                                                                                                                                                                                                                                                                                                              Length 2231;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SOFTWARE: Patentin Release #1.0, Version #1.30 CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/283,857
FILING DATE: 01-AUG-1994
CLASSIFICATION: 435
                                                                                                                                                                                   NAME/KEY: Protein
LOCATION: 1..2231
OTHER INFORMATION: /note= "Human fibronectin"
                                                                                                                                                                                                                                                                                                                                                                          100.0%; Score 275; DB 1;
100.0%; Pred. No. 4.9e-27;
iive 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SSEE: BROWDY AND NEIMARK
F: 419 Seventh Street, N.W., Suite 300
Washington
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FILING DATE: 01-AUG-1994
CLASSIFCATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/714,134
FILING DATE: 14-UNN-1991
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GOLD=1A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ZIP: 20004
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
CMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NAME: BROWDY, ROGER L.
REGISTRATION NUMBER: 25,618
REPERENCE/DOCKET NUMBER: GOLD
TELECOMMUNICATION INFORMATION:
TELEPHONE: 202-628-5197
TELEPHONE: 202-737-3528
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2324 amino acids
                                                                                                             ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TELEFAX: 202-737-3528
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                        49; Conservative
       protein
NO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MOLECULE TYPE: peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NUMBER OF SEQUENCES: 1
CORRESPONDENCE ADDRESS:
ADDRESSEE: BROWDY AN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local Similarity
Matches 49; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                 Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STRANDEDNESS:
                                   HYPOTHETICAL: ORIGINAL SOURCE
       MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                    US-08-153-799-16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 2
US-08-283-857-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STREET:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-08-283-857-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STATE:
                                                                                                                                                                                                                                                                                                                                                                                  Query Match
                                                                                                                                                FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                        Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ð
```

1 QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWBRTYLGNVLVCTCYG

```
Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICATION DATE: 29-15

FPATENT NO. 5455158

APPLICANT: VOGEL, TIKVA; LEVANON, AVIGDOR; WERBER, MOSHE M.;

GUY, RACHEL; PANET, AMOS

TITLE OF INVENTION: FIBRIN BINDING DOMAIN POLYPEPTIDES AND JUSES AND METHODS OF PRODUCING SAME

NUMBER OF SEQUENCES: 20

CURRENT APPLICATION DATA:

APPLICATION NUMBER: 105/08/58,241

FILING DATE: 21-ARX-1990

FILING DATE: 22-ARX-1990

APPLICATION NUMBER: 345,952

FILING DATE: 29-DEC-1988

FILING DATE: 29-DEC-1988
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    49
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYG 49
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 2324;
                                                                                  FIBRIN-BINDING PEPTIDES, DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYG
                                                                                                                                                                                                                                                                                                                                                                         SOFTWARE: Patentin Release #1.0, Version #1.30 (EPO)
CURRENT APPLICATION DATA:
APPLICATION NUMBER: PCT/US95/09819
                                                                                    FIBRONECTIN FIBRIN-BINDING PEPTII CODING THEREFOR AND USES THEREOF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 100.0%; Score 275; DB 5;
llarity 100.0%; Pred. No. 5.1e-27;
Conservative 0; Mismatches 0;
                                                                                                                               STREET: 419 Seventh Street, N.W., Suite 300 CITY: Washington STATE: D.C.
                                                                                                                                                                                                                                                                                                                                                                                                                APPLICALLOL.
FILING DATE:
FILING DATE:
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/283,857
FILING DATE: 01-AUG-1994
ATTORNEY AGENT INFORMATION:
NAME: BROWDY, ROGER L.
REGISTRATION NUMBER: 25,618
FRERENCE/DOCKET NUMBER: GOLD=1A P
TELECOMMUNICATION INFORMATION:
TELEPHONE: 202-628-5197
TELEFAX: 202-737-3528
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GOLD=1A PCT
                                                                                                                                                                                                                                   STATE: D.C.
COUNTRY: USA
ZIP. 20004
ZIP. 20004
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
PCT-US95-09819-1; Sequence 1, Application PC/TUS9509819; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TELEX: 248633
INFORMATION FOR SEQ ID NO: 1:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2324 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         , MOLECULE TYPE: peptide PCT-US95-09819-1
                                                                                                                           NUMBER OF SEQUENCES: 6
CORRESPONDENCE ADDRESS:
ADDRESSEE: BROWDY AN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local Similarity
                                                                                    TITLE OF INVENTION: TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       linear
```

ö

```
Sequence 2, Application US/08551356
Patent No. 5830700
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ZIP: 98105
COMPUTER READABLE FORM:
MEDIUM TYPE: Ploppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         INFORMATION FOR SEQ ID NO: 2: SEQUENCE CHARACTERISTICS: LENGTH: 2446 amino acids
                                                                                                                                      INFORMATION FOR SEQ ID NO: 12
SEQUENCE CHARACTERISTICS:
LENGTH: 2386 amino acids
TYPE: amino acid
STRANDEDNESS: single
ATTORNEY/AGENT INFORMATION:
NAME: Plumer, Elizabeth
                                                                                                                                                                                                                                                                                         TOPOLOGY: linear
MOLECULE TYPE: protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MOLECULE TYPE: protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity
Matches 49; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FILING DATE:
                                                                                                                                                                                                                                                                       US-09-016-366A-12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-08-551-356-2
                                                                                                                                                                                                                                                                                                                                                                                    Š
                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                          ö
                                                                                                                                                                                                                                                              Patent No. 5455158

APPLICANT: VOGEL, TIKVA; LEVANON, AVIGDOR; WERBER, MOSHE M.;
GUY, RACHEL; PANCH: AMOS

TITLE OF INVENTION: FIBRIN BINDING DOWAIN POLYPEPTIDES AND
UNDERS AND METHODS OF PRODUCING SAME

CURRENT APPLICATION DATA:

APPLICATION NUMBER: US/08/58,241

FILING DATE: 04-MAY-1993

PRIOR APPLICATION NUMBER: 526,397

FILING DATE: 21-MAY-1990

APPLICATION NUMBER: 526,397

FILING DATE: 21-MAY-1999

APPLICATION NUMBER: 28-359.

FILING DATE: 29-359.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQMERTYLGNVLVCTCYG 52
                                                                                                                                                               QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYG 52
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 2327;
                                                                    Length 2327;
                                                                                                                                            1 QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYG
                                                                                                          0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-09-016-366A-12

Sequence 12, Application US/09016366A

Patent No. 5955431

GENERAL INFORMATION:
APPLICANT: Stevens, Richard L.
APPLICANT: Huang, Chifu
ITILE OF INVENTION: MAST CELL PROTEASE PEPTIDE
ITILE OF INVENTION: INHIBITORS
NUMBER OF SEQUENCES: 65
CORRESPONDENCE ADDRESS:
ADDRESSE: Wolf, Greenfield & Sacks, P.C.
STREET: 600 Atlantic Avenue
                                                                    Query Match
Best Local Similarity 100.0%; Pred. No. 5.1e-27;
Matches 49; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             100.0%; Score 275; DB 6; 100.0%; Pred. No. 5.1e-27;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COMPUTER: IBM Compatible
OPERATING SYSTEM: DOS
SOFTWARE: FASESEC for Windows Version 2.0
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER: US/09/016,366A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FILING DATE: January 30, 1998
CLASSIFICATION: 530
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 60/037,090
FILING DATE: 05-FEB-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette
COMPUTER: IBM COmpatible
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STATE: MA
STATE: MA
COUNTRY: U.S.A.
7TP: 02210-2211
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ADDRALL
STREET: 600
TTTY: Boston
SEQ ID NO:1:
; LENGTH: 2327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LENGTH: 2327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQ ID NO:1
                                                                                                                                                                                                                                     RESULT 5
5455158-1
                                  5455158-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          5455158-1
                                                                                                                                              ઠે
                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
```

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                             ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    .;
0
                                                                                                                                                                                                                                                                                                                                                                            100.0%; Score 275; DB 2; Length 2386; 100.0%; Pred. No. 5.3e-27; ive 0; Mismatches 0; Indels 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYG 49
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       32 QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYG 80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   100.0%; Score 275; DB 2; Length 2446; llarity 100.0%; Pred. No. 5.4e-27; Conservative 0; Mismatches 0; Indels 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: Irani, Meher
TITLE OF INVENTION: HYBRID CROSS-LINKING PROTEINS
NUMBER OF SEQUENCES: 14
ADDRESSEE: ZymoGenetics, Inc.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/551,356
NAME: Plumer, Elizabeth R.
REGISTRATION NUMBER: 36,637
REFERENCE/DOCKET NUMBER: B0801/7093
TELECOMMUNICATION INFORMATION:
TELEPHONE: 617-720-3500
TELEFRAX: 617-720-2441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US/08/349,762
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ATTORNEY/AGENT INFORMATION:
NAME: HOLLY, JULIE A
REGISTRATION NUMBER: 92-26
REFERENCE/DOCKET NUMBER: 92-26
TELEPHONE: 206-547-8080 ext 322
TELEPAX: 206-548-2329
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FILING DATE: US/07/998,271 PILING DATE: US/07/998,271
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ADDRESSEE: ZymoGenetics, Inc.
STREET: 4225 Roosevelt Way, N.E.
CITY: Seattle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PC-DOS/MS-DOS
```

```
SOFTWARE: PatentIn Ver. 2.1 SEQ ID NO 1
                                                                                                                                                                                                                                                                                                                                                                US-08-142-449B-14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TOPOLOGY:
                                          LENGTH: 2386
                                                                                                                                                                                                                                                                                                                                             RESULT 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ð
                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: HAENDLER, BERNARD
APPLICANT: HAENDLER, BERNARD
APPLICANT: KRAETZSCHWAR, JOERN
APPLICANT: KREFT, BERTHOLT
APPLICANT: WINTERHAGER, ELKE
APPLICANT: REGIDOR, PEDRO
APPLICANT: SCOTTI, SIMONE
TITLE OF INVENTION: METHOD FOR IN VITRO DIAGNOSIS OF ENDOMETRIOSIS
FILE REFERENCE: SCH-1789
CURRENT APPLICATION NUMBER: US/09/961,403
CURRENT FILING DATE: 2001-09-25
NUMBER OF SEQ ID NOS: 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQMERTYLGNVLVCTCYG 80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYG 49
                                            32 QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYG 80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 2446;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0; Indels
                                                                                                                                                                                                     TITLE OF INVENTION: HYBRID CROSS-LINKING PROTEINS NUMBER OF SEQUENCES: 14
CORRESPONDENCE ADDRESS: ADDRESSE: ZymoGenetics, Inc.
STREET: 4225 Roosevelt Way, N.E.
CITY: Seattle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: PCT/US93/12687
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
100.0%; Score 275; DB 5;
Best Local Similarity 100.0%; Pred. No. 5.4e-27;
Matches 49; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/998,271
FILING DATE: 31-DEC-1992
ATTOMNEY AGENT INFORMATION:
REGISTRATION NUMBER: 31-648
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               REGISTRATION NUMBER: 31-648
REFERENCE/DOCKET NUMBER: 92-26PC
                                                                                                                                                                                                                                                                                                                                                                                                                            COMPUTER READABLE FORM:
BIDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TELECOMMUNICATION INFORMATION:
TELEPHONE: 206-547-8080 ext 322
                                                                                                                                                                  Sequence 2, Application PC/TUS9312687 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESUL: ,
US-09-961-403-1
; Sequence 1, Application US/09961403
; Patent No. 6780594
; GENERAL INFORMATION:
; APPLICANT: HE-STUMPP, HOLGER
; APPLICANT: HEARDLER; BENDARD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TELEFAX: 206-548-222
INFORMATION FOR SEQ ID NO: 2:
SEQUENCE CHARACTERISTICS:
FENGTH: 2446 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TOPOLOGY: linear
MOLECULE TYPE: protein
PCT-US93-12687-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                    COUNTRY: US
ZIP: 98105
                                                                                                                                                    PCT-US93-12687-2
                                                                                                                              RESULT 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ð
                                                              g
                        ò
```

```
ö
                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                   .
0
                                                                                                                                                                             49
                                                                                                                                                                                                      32 QAQQMYQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNALVCTCYG 80
                                                                                                                                                                                                                                                                                                                                                                            GENERAL INFORMATION:
APPLICANT: Nakahata, Tatsutoshi
APPLICANT: Nakahata, Tatsutoshi
APPLICANT: Sudo, Tetsuo
APPLICANT: Sudo, Tetsuo
APPLICANT: Kojima, Katsuaki
TITLE OF INVENTION: Physiologically Active Protein and
TITLE OF INVENTION: Hematopoietic Stem Cell Growth Agent
NUMBER OF SEQUENCES: 14
CORRESPONDENCE ADDRESS:
ADDRESSEE: Nels T. Lippert, White & Case
STREET: 1155 Avenue of the Americas
CITY: New York
CUNTRY: U.S.A.
ZIP: 10036-2787
                                                                                 Length 2386;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 188;
                                                                                                                                                                             1 QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  40.0%; Score 110; DB 1; Length 18:51.7%; Pred. No. 1.2e-06; 7; Indels
                                                                                                                                1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM FC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/142,449B
FILING DATE: 24-NOV-1994
CLASSIFICATION: 435
                                                                                      Query Match
98.5%; Score 271; DB 4;
Best Local Similarity 98.0%; Pred. No. 1.8e-26;
Matches 48; Conservative 0; Mismatches 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       97 CYDDGKTYHVGEQWQKEYLGAICSCTCFG 125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              21 CYDNGKHYQINQQWERTYLGNVLVCTCYG 49
                                                                                                                                                                                                                                                                                                                                     Sequence 14, Application US/08142449B
Patent No. 5668104
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 11
US-08-836-854-12
'Sequence 12, Application US/08836854
'Patent No. 5874547
'GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NAME: Lippert, Nels T.
REGISTRATION NUMBER: 25,888
REFERENCE/DOCKET NUMBER: 11453
TELECOMMUNICATION INPORMATION:
TELEPAX: (212) 354-813
INPORMATION FOR SEQ ID NO: 14:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               : 188 amino acids
amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local Similarity 51.7
Matches 15; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   , MOLECULE TYPE: protein US-08-142-449B-14
TYPE: PRT
CORGANISM: Homo sapiens
US-09-961-403-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     linear
```

```
APPLICANT: NOTALITY
APPLICANT: NORLAY ALEX
APPLICANT: NORLAY ALEX
APPLICANT: NORLAY ALEX
TITLE OF INVENTION: FIBRONECTIN BINDING SITES AND METHODS OF
TITLE OF INVENTION: MODULATING FIBRONECTIN EXTRACELLULAR MATRIX ASSEMBLY
NUMBER OF SEQUENCES: 19
CORRESPONDENCE ADDRESS:
ADDRESSEE: CAMPBELL AND FLORES
SITEET: ALTO LA JOLLA VILLAGE DRIVE, STE 700
CITY: SAN DIEGO
STATE: CALIFORNIA
COUNTRY: UNITED STATES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 110; DB 2; Length 474;
Pred. No. 3.7e-06;
7; Mismatches 7; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/340,812
FILING DATE: 17-NOV-1994
CLASSIFICATION: 530
PRIOR APPLICATION NUMBER: 08/021,626
FILING APPLICATION NUMBER: 08/021,626
FILING DATE: 16-FEB-1993
ATTORNEY/AGENT INFORMATION:
NAME: BELLAS, CHRISTINE
NEGISTENCE/DOCKET NUMBER: 9-LA 9442
TELECOMMUNICATION INFORMATION:
                     PatentIn Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           383 CYDDGKTYHVGEQWQKEYLGAICSCTCFG 411
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         21 CYDNGKHYQINQQWERTYLGNVLVCTCYG 49
                                                                                                                                         CLASSIFICATION: 435
PRIOR APPLICATION DATA;
ATTORNEY/AGENT INFORMATION;
NAME: Browdy, Roger L.
REJECOMMUNICATION NUMBER: 4ASHINO=1
TELECOMMUNICATION INFORMATION;
TELEFAX: (202) 628-5197
TELEFAX: (202) 737-3528
INFORMATION FOR SEQ ID NO: 9:
SEQUENCE CHARACTERISTICS;
                                                  CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/836,854
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 7, Application US/08340812
Patent No. 5629291
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local Similarity 51.7%;
Matches 15; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        : 474 amino acids
amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TELEPHONE: 619-535-9001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ; TOPOLOGY: linear; MOLECULE TYPE: peptide US-08-836-854-9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TELEFAX: 619-535-8949
INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   92122
                     SOFTWARE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-08-340-812-7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
APPLICANT: HASHINO, Kimikazu
APPLICANT: MATSUSHITA, Hideyuki
APPLICANT: KATO, Ikunoshin
TITLE OF INVENTION: METHOD OF PRODUCTION OF TRANSFECTED CELLS
NUMBER OF SEQUENCES: 21
CORRESPONDENCE ADDRESS:
ADDRESSE: Browdy and Neimark
STREET: 419 Seventh Street N.W. Ste. 300
CITY: Washington
STREET: D.C.
COUWIRY: USA
ZIP: 2004
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: Ploppy disk
COMPUTER: Ploppy disk
COMPUTER: Ploppy disk
COMPUTER: Ploppy Misk
COMP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 12
US-08-836-854-9
; Sequence 9, Application US/08836854
; Patent No. 5824547
; GENERAL INFORMATION:
; APPLICANT: MASHINO, Kimikazu
APPLICANT: MASHINO, Kimikazu
; APPLICANT: MATSUSHITA, Hideyuki
APPLICANT: MATSUSHITA, Hideyuki
; TITLE OF INVENTION: METHOD OF PRODUCTION OF TRANSFECTED CELLS
; NUMBER OF SEQUENCES: 21
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Browdy and Neimark
; TITLE OF INVENTION: APPLICANT OF TRANSFECTED CELLS
; ADDRESSEE: ADDRESSE:
; ADDRESSEE: ADDRESSE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            40.0%; Score 110; DB 2; Length 422; 51.7%; Pred. No. 3.2e-06; tive 7; Mismatches 7; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SOFTWARE: Patentin Release #1.0, Version #1.30 CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/836,854
FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          STREET: 419 Seventh Street N.W. Ste. 300 CITY: Washington STATE: D.C. COUNTRY: USA ZIP: 20004 COMPUTER READABLE FORM: MEDIUM TYPE: Floppy disk COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          380 CYDDGKTYHVGEQWQKEYLGAICSCTCFG 408
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     21 CYDNGKHYQINQQWERTYLGNVLVCTCYG 49
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: PCT/JP95/02425
FILING DATE: 29-NOV-1995
PRIOR APPLICATION NUMBER: 317721/1994
APPLICATION NUMBER: 317721/1994
ATTORNEY/AGENT INPORMATION:
NAME: Browdy, Roger L.
REGISTRATION NUMBER: 25,618
REFERRNCE/POCKET NUMBER: 25,618
REFERRNCE/POCKET NUMBER: 25,618
REFERRNCE/POCKET NUMBER: 25,618
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TELEPHONE: (202) 628-5197
TELEFAX: (202) 737-3528
INFORMATION FOR SEQ ID NO: 12:
SEQUENCE CHARACTERISTICS:
LENGTH: 422 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity 51.7
Matches 15; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TYPE: amino acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MOLECULE TYPE: peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-08-836-854-12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
```

Gaps

.. 0

```
TOPOLOGY:
                                                                                                            US-08-460-421A-7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 7, Application US/08459064B
Parent No. 5747452
GENERAL INFORMATION:
APPLICANT: RUOSLAHTI, ERKKI I.
APPLICANT: RUOSLAHTI, ERKKI I.
TITLE OF INVENTION: A METHOD OF MODULATING TUMOR CELL MIGRATION
TITLE OF INVENTION: USING FIBRONECTIN TYPE III PEPTIDES
NUMBER OF SEQUENCES: 35
CORRESPONDENCE ADDRESS:
ADDRESSEE: CAMPBELL & FLORES LLP
STREET: 4370 LA JOLIA VILLAGE DRIVE, STE 700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       .,
0
                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                          Query Match 29.1%; Score 80; DB 1; Length 42; Best Local Similarity 42.9%; Pred. No. 0.0017; Matches 12; Conservative 7; Mismatches 9; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          29.1%; Score 80; DB 1; Length 42; 42.9%; Pred. No. 0.0017;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   9; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CUUTY: A370 LAN OLIGA VILLANDE DIALE, OLIC VILLANDE COUTY: A370 LAN OLIGA COUNTRY: UNITED STATES
ZIP: 92122
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC COMPATIBLE
COMPUTER: IBM PC COMPATIBLE
COMPUTER: IBM PC COMPATIBLE
COMPUTER: IBM PC COMPATIBLE
COMPATING SYSTEM: PC-DOS/MS-DOS
SOCTWARE: PABELICATION DATA:
APPLICATION NUMBER: US/08/459,064B
FILING DATE: 01-UNN-1995
CLASSITCATION: 514
PRIOR APPLICATION NUMBER: US 07/829,462
PRIOR APPLICATION NUMBER: US 08/021,626
FILING DATE: 16-FEB-1993
PRIOR APPLICATION NUMBER: US 08/021,626
FILING DATE: 16-FEB-1993
PRIOR APPLICATION NUMBER: US 08/340,812
FILING DATE: 16-FEB-1993
PRIOR APPLICATION NUMBER: B-LA 1543
REGISTRANTS/ACKET NUMBER: B-LA 1543
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATIO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   7; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             22 YDNGKHYQINQQWERTYLGNVLVCTCYG 49
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       4 YDDGKTYHVGEQWQKEYLGAISSSTSFG 31
                                                                                                                                                                                                                                                                                                                                                                                                                 22 YDNGKHYQINQQWERTYLGNVLVCTCYG 49
                                                                                                                                                                                                                                                                                                                                                                                                                                                               4 YDDGKTYHVGEQWQKEYLGAISSSTSFG 31
                                      LENGTH: 42 amino acids
TYPE: amino acid
TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TELEFAX: 619-535-8949
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          42 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   12; Conservative
SEQUENCE CHARACTERISTICS:
LENGTH: 42 amino acide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MOLECULE TYPE: peptide
                                                                                                                                   , MOLECULE TYPE: peptide US-08-340-812-7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        amino acid
3Y: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity
Matches 12; Conserva
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-08-459-064B-7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 14
US-08-459-064B-7
                                                                                                                                                                                                                                                                                                                                                                                                                     ð
```

```
Sequence 7, Application Us/08460421A

Sequence 7, Application Us/08460421A

Partent No. 8837813

CONRESPONDERCE 305

CONRESPONDERCE S. CANDERGE: PROMES LIP

CONRESPONDERCE CONFESS: ADMINISTRY NOT A CALL WILLIAGE DRIVE, STE 700

CITY. SAN DIRGO

CITY. SAN DIRGO

CITY. SAN DIRGO

CITY. SAN DIRGO

CITY: SAN DIRGO

CITY SAN DIRGO

CIT
```

# GenCore version 5.1.6 Copyright (c) 1993 - 2005 Compugen Ltd.

OM protein - protein search, using sw model Run on:

September 30, 2005, 08:57:20; Search time 37.0257 Seconds (without alignments) 549.366 Million cell updates/sec

US-09-492-971B-15\_COPY\_4\_52

275 1 QAQQMVQPQSPVAVSQSKPG.....INQQWERTYLGNVLVCTCYG 49 Perfect score: Sequence:

Gapop 10.0 , Gapext 0.5 **BLOSUM62** Scoring table:

1846076 segs, 415116000 residues Searched: 1846076 Total number of hits satisfying chosen parameters:

length: 0 length: 2000000000 Minimum DB seq Maximum DB seq

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

Database

Published Applications AA:\*

1: \cgn2 6/ptodata/2/pubpaa/USO7\_PUBCOMB.pep:\*

2: \cgn2 6/ptodata/2/pubpaa/USO7\_NEW PUB.pep:\*

4: \cgn2 6/ptodata/2/pubpaa/USO6\_NEW PUB.pep:\*

4: \cgn2 6/ptodata/2/pubpaa/USO6\_PUBCOMB.pep:\*

5: \cgn2 6/ptodata/2/pubpaa/USO6\_PUBCOMB.pep:\*

6: \cgn2 6/ptodata/2/pubpaa/USO6\_PUBCOMB.pep:\*

7: \cgn2 6/ptodata/2/pubpaa/USO8\_PUBCOMB.pep:\*

8: \cgn2 6/ptodata/2/pubpaa/USO8\_PUBCOMB.pep:\*

9: \cgn2 6/ptodata/2/pubpaa/USO8\_PUBCOMB.pep:\*

10: \cgn2 6/ptodata/2/pubpaa/USO8\_PUBCOMB.pep:\*

11: \cgn2 6/ptodata/2/pubpaa/USO8\_PUBCOMB.pep:\*

12: \cgn2 6/ptodata/2/pubpaa/USO8\_PUBCOMB.pep:\*

12: \cgn2 6/ptodata/2/pubpaa/USO8\_PUBCOMB.pep:\*

13: \cgn2 6/ptodata/2/pubpaa/USO8\_PUBCOMB.pep:\*

13: \cgn2 6/ptodata/2/pubpaa/USO8\_PUBCOMB.pep:\*

15: \cgn2 6/ptodata/2/pubpaa/USO8\_PUBCOMB.pep:\*

16: \cgn2 6/ptodata/2/pubpaa/USO8\_PUBCOMB.pep:\*

16: \cgn2 6/ptodata/2/pubpaa/USO8\_PUBCOMB.pep:\*

17: \cgn2 6/ptodata/2/pubpaa/USO8\_PUBCOMB.pep:\*

18: \cgn2 6/ptodata/2/pubpaa/USO8\_PUBCOMB.pep:\*

19: \cgn2 6/ptodata/2/pubpaa/USO8\_PUBCOMB.pep:\*

10: \cgn2 6/ptodata/2/pubpaa/USO8\_PUBCOMB.pep:\*

11: \cgn2 6/ptodata/2/pubpaa/USO8\_PUBCOMB.pep:\*

12: \cgn2 6/ptodata/2/pubpaa/USO8\_PUBCOMB.pep:\*

13: \cgn2 6/ptodata/2/pubpaa/USO8\_PUBCOMB.pep:\*

14: \cgn2 6/ptodata/2/pubpaa/USO8\_PUBCOMB.pep:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

# SUMMARIES

	Description	Sequence 4, Appli	Sequence 64, Appl	Sequence 70, Appl	Sequence 98, Appl	Sequence 98, Appl	Sequence 677, App	Sequence 677, App	Sequence 677, App	Sequence 52638, A	Sequence 548, App	Sequence 548, App
	ΔI	US-09-940-235-4	US-10-171-311-64	US-10-236-031B-70	US-10-374-979-98	US-10-182-936A-98	US-10-477-238A-677	US-10-680-287A-677	US-10-477-173-677	US-10-450-763-52638	US-09-925-302-548	
	DB ]	101	14	15	15	15	16	16	11	18	6	10
	Query Match Length DB ID	259	2328	2328	2328	2328	2328	2328	2328	2474	231	231
dР	Query	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	98.5	98.5
	Score	275	275	275	275	275	275	275	275	275	271	271
	Result No.		8	m	4	S	9	7	60	σ	10	11

Sequence 52, Appl Sequence 52, Appl Sequence 354, Appl Sequence 1066, Appl Sequence 359, Appl	356, 356, 1069, 52634	3, 23	Sequence 94, Appl Sequence 357, App Sequence 104, App Sequence 1067, Ap Sequence 1078, Ap Sequence 1078, Ap	436, 1137, 28, A 1, Ap	32, 1 1071, 59, 1 9, Au
-10-144-194A-52 -10-491-566-52 -10-741-601-354 -10-741-600-106	10-741- 10-741- 10-450- 10-236-		0-734-56 0-741-60 0-741-60 0-491-56 0-741-60	23 1 28 1 4 1	US-10-618-281-32 US-10-741-600-1071 US-10-868-577A-59 US-10-485-758-4 US-10-485-758-9 US-10-236-392-2
119 119 119	12	15 17 17 17 17 17 17 17 17 17 17 17 17 17	16 16 17 17	18 18 20 10 16 16	16 17 17 18 18 15
4 4 6 4 6 4 4 6 6 3 4 6 5 7 7 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	984 984 1173 2220	2236 2355 2355 2355	73222222222222222222222222222222222222	23355 23355 23355 2336 2336 2336 2336 23	2386 2386 2386 2386 2386 2320
8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8			0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		99 99 99 99 99 99 99 99 99 99 99 99 99
271 271 271 271	271 271 271	271 271 271 271	221 221 172 172 172	271 271 271 271 271	271 271 271 271 271 256
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	118 20 210	2 2 3 3 5 6 5 4 3 2	7 8 8 8 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	, w w w w w w w w w w w w w w	4 4 4 4 4 4 0 4 4 6 6 6 7

### ALIGNMENTS

SCHERANT INFORMATION:

APPLICANT: Sahni, Girish
APPLICANT: Sahni, Girish
APPLICANT: Sahni, Girish
APPLICANT: Rajagopal, Kammara
APPLICANT: Rajagopal, Kammara
APPLICANT: Rajagopal, Kammara
APPLICANT: Rajagopal, Kammara
APPLICANT: Sundarami, Vasudha
APPLICANT: Vadav, Mahavir
TITLE OF INVENTION: NOVEL CLOT-SPECIFIC STREPTOKINASE
TITLE OF INVENTION: PROTEIN
TITLE OF INVENTION: DATE: 1999/940,235
CURRENT FILING DATE: 2002-04-09
PRIOR PILING DATE: 1999-12-23
PRIOR FILING DATE: 1999-12-24
NUMBER OF SEQ ID NOS: 28
SOFTHARE: FRALESEQ for Windows Version 4.0
SEQ ID NO 4
LEMETRE DATE: 259 Sequence 4, Application US/09940235 Publication No. US20030059921A1 GENERAL INFORMATION:

ö Gaps . 0 Length 259; Indels 100.0%; Score 275; DB 10; 100.0%; Pred. No. 5.4e-27; ative 0; Mismatches 0; Query Match 100. Best Local Similarity 100. Matches 49; Conservative

ORGANISM: Homo sapiens

US-09-940-235-4

Gaps

; 0

Indels

100.0%; Score 275; DB 15; 100.0%; Pred. No. 6.3e-26; iive 0; Mismatches 0;

Length 2328;

```
1 QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYG 49
Query Match
Best Local Similarity 100.0
Matches 49; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LENGTH: 2328
                                                                                                                                                                                US-10-374-979-98
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-10-374-979-98
                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                           APPLICANT: Anomalan, John
APPLICANT: Monahan, John
APPLICANT: Kamatkar, Shubhangi
APPLICANT: Kamatkar, Shubhangi
APPLICANT: Glatt, Karen
APPLICANT: Dennavarapu, Manjula
APPLICANT: Dennavarapu, Manjula
APPLICANT: Dennavarapu, Manjula
APPLICANT: Dennavarapu, Manjula
APPLICANT: MVENTION: DENNIFICANCE
FILE OF INVENTION: OF CERVICAL CANCER
FRIOR APPLICATION NUMBER: US 60/298,159
PRIOR APPLICATION NUMBER: US 60/298,155
PRIOR APPLICATION NUMBER: US 60/298,155
PRIOR FILING DATE: 2001-06-13
PRIOR PRILING DATE: 2001-06-13
PRIOR FILING DATE: 2001-104-14
NUMBER OF SEQ ID NOS: 238
SOFTWARE: FastSEQ for Windows Version 4.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     °;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 100.0%; Score 275; DB 14; Length 2328; ilarity 100.0%; Pred. No. 6.3e-26; Conservative 0; Mismatches 0; Indels 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         49
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            5 QAQQMYQPQSPVAVSQSKPGCYDNGKHYQINQQMERTYLGNVLVCTCYG 53
                                       1 QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYG 49
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 64, Application US/10171311; Publication No. US20030087270A1; GENERAL INFORMATION:
                                                                                                                                                                                               APPLICANT: Schlegel, Robert
APPLICANT: Chen, Yan
                                                                                                                                                                                                                    Chen, Yan
Zhao, Xumei
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US-10-236-031B-70
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     49;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LENGTH: 2328
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-10-171-311-64
                                                                                                                                                                                                                                       APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                   q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8
                    8
```

```
US-10-184-9364-98

Sequence 98, Application US/10182936A

Sequence 98, Application US/10182936A

Sequence 98, Application US/10182936A

Sequence 98, Application No. US20040038860A1

GENERAL INFORMATION:

APPLICANT: Allaen, Kristina M.

APPLICANT: Bhat, Bheem

APPLICANT: Bhat, Bheem

APPLICANT: Badgnez, Veronique

APPLICANT: Pamagnez, Veronique

APPLICANT: Yaworsky, Paul

ITLE OF INVENTION: Reagents and Method for Modulating DKK-Mediated Interactions

FILE REFERENCE: 032796-143

CURRENT APPLICATION NUMBER: US/10/182,936A

CURRENT APPLICATION NUMBER: US 60/291,311

PRIOR PILING DATE: 2002-06-17

PRIOR PILING DATE: 2001-05-17

PRIOR PILING DATE: 2001-05-17

PRIOR PILING DATE: 2002-03-04

NUMBER OF SEQ ID NOS: 216

SOFTWARE: FastSEQ for Windows Version 4.0

SEQ ID NO 98

LENGTH: 2328

TAVER: DETAIL 2328
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 2328;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               49
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          5 QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYG 53
5 QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYG 53
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYG
                                                                                                                                           Sequence 99, Application US/10374979;
Publication No. US20030219793A1;
GENERAL INFORMATION:
APPLICANT: John P. Carulli et al.;
TITLE OF INVENTION: THE HIGH BONE MASS GENE OF 11q13.3;
FILE REFERENCE: 032796-021
CURRENT FILING DATE: 2003-03-04;
PRIOR FILING DATE: 2000-04-05;
PRIOR PLICATION NUMBER: US 09/543,771
PRIOR PLILING DATE: 2000-04-05;
PRIOR PLILING DATE: 1999-01-13
PRIOR FILING DATE: 1998-01-13
PRIOR FILING DATE: 1998-01-13
PRIOR FILING DATE: 1998-01-33
NUMBER OF SEQ ID NOS: 109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match 100.0%; Score 275; DB 15; Best Local Similarity 100.0%; Pred. No. 6.3e-26; Matches 49; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TYPE: PRT
ORGANISM: Homo sapiens
```

```
FastSEQ for Windows Version 4.0
NUMBER OF SEQ ID NOS: 812
                                                                                                                                                                                                Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-10-450-763-52638
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US-10-477-173-677
                                                                        2328
                       SOFTWARE: Fas
SEQ ID NO 677
LENGTH: 2328
                                                                                                                                                                                                                                          Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ð
                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                   ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 677, Application US/10680287A

Sequence 677, Application US/10680287A

PUDIcation No. US20040244069A1

GENERAL INFORMATION:

APPLICANT: Babij, Philip

APPLICANT: Bex, Frederick J. III

APPLICANT: Bex, Frederick J. III

APPLICANT: Bec, Reder Van Nest

TITLE OF INVENTION: Transgenic Animal Model of Bone Mass Modulation

FILE REFERENCE: 032796-179

CURRENT APPLICATION NUMBER: US/10/680,287A

CURRENT FILING DATE: 2003-10-08

PRIOR PILING DATE: 2002-05-13

PRIOR PELING DATE: 2001-05-11

PRIOR PLILING DATE: 2001-05-17

PRIOR FILING DATE: 2002-05-01

PRIOR FILING DATE: 2002-05-01

PRIOR FILING DATE: 2002-03-04
                                                                                                                                                                                                                                                                                                                                                                                    FULLIACATION NO. UNSUUGUZISZEGAI
GENERAL INFORMATION:
APPLICANT: Babij, Philip
APPLICANT: Babij, Philip
APPLICANT: Babij, Philip
APPLICANT: Babis, Peter Van Nest
TITLE OF INVENTION: Transgenic Animal Model of Bone Mass Modulation
FILE REFERENCE: 032796-212
CURRENT APPLICATION NUMBER: US/10/477,238A
CURRENT FILING DATE: 2003-11-10
PRIOR APPLICATION NUMBER: US 60/290,071
PRIOR APPLICATION NUMBER: US 60/291,311
PRIOR APPLICATION NUMBER: US 60/291,311
PRIOR APPLICATION NUMBER: US 60/391,39
PRIOR FILING DATE: 2001-05-17
PRIOR APPLICATION NUMBER: US 60/361,293
PRIOR FILING DATE: 2002-02-04
PRIOR SEQ ID NOS: 812
SOCITWARE: PastSEQ for Windows Version 4.0
SEQ ID NO 677
LEWICH 1. 2012
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                       ő
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 2328;
                                                                      Length 2328;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYG 49
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    5 QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYG 53
                                                                                                                                                                         1 QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYG 49
                                                                                                                                                                                                           5 QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                       Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match 100.0%; Score 275; DB 16; Best Local Similarity 100.0%; Pred. No. 6.3e-26; Matches 49; Conservative 0; Mismatches 0;
                                                                           Query Match 100.0%; Score 275; DB 15;
Best Local Similarity 100.0%; Pred. No. 6.3e-26;
Matches 49; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                  Sequence 677, Application US/10477238A
Publication No. US20040221326A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              , ORGANISM: Homo sapiens
US-10-477-238A-677
     ; ORGANISM: Homo sapiens
US-10-182-936A-98
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-10-680-287A-677
                                                                                                                                                                                                                                                                                                                                US-10-477-238A-677
                                                                                                                                                                              ઠ
                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
```

```
ö
                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: Morales, Arturo J.
APPLICANT: Graham, James R.
APPLICANT: Anisowicz, Anthony
APPLICANT: Liu, Wei
TITLE OF INVENTION: HBM Variants that Modulate Bone Mass and Lipid Levels
FILE REFERENCE: 032796-135
CURRENT APPLICATION NUMBER: US/10/477,173
CURRENT FILING DATE: 2003-11-10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                               Gaps
                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    100.0%; Score 275; DB 17; Length 2328; 100.0%; Pred. No. 6.3e-26; tive 0; Mismatches 0; Indels 0;
                                                                                       Length 2328;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           49
                                                                                                                                                                                            1 QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYG 49
                                                                                                                                                                                                                            5 QAQQWVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYG 53
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 52638, Application US/10450763
; Publication No. US20050196754A1
; GENERAL INFORMATION:
   APPLICANT: Hyseq, Inc.
   TITLE OF INVENTION: NOVEL NUCLEIC ACIDS AND POLYPEPTIDES
; TITLE OF INVENTION: NOVEL NUCLEIC ACIDS AND POLYPEPTIDES
; CURRENT APPLICATION NUMBER: US/10/450,763
; CURRENT FILING DATE: 2003-06-11
; PRIOR FILING DATE: 2001-03-30
; PRIOR FILING DATE: 2001-03-31
; PRIOR FILING DATE: 2000-03-31
; PRIOR FLING DATE: 2000-03-31
; PRIOR PLILING DATE: 2000-03-31
                                                                                                                                            Indels
                                                                                       ; Score 275; DB 16;
; Pred. No. 6.3e-26;
0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: Genome Therapeutics Corporation and APPLICANT: Allen, Kristina M. APPLICANT: Yaworsky, Paul
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CURKENT FILING DATE: 2003-11-10

PRIOR APPLICATION NUMBER: US 60/290,071

PRIOR FILING DATE: 2001-05-11

PRIOR FILING DATE: 2001-05-11

PRIOR PILING DATE: 2001-05-17

PRIOR PILING DATE: 2001-05-17

PRIOR APPLICATION NUMBER: US 60/353,058

PRIOR FILING DATE: 2002-02-01

PRIOR FILING DATE: 2002-03-04

NUMBER OF SEQ ID NOS: 1086

SOFTWARE: FASTSEQ for Windows Version 4.0

SEQ ID NO 677
                                                                                                                                                                                                                                                                                                                                                                     Sequence 677, Application US/10477173
Publication No. US20050070699A1
GENERAL INFORMATION:
                                                                                          ch
1 Similarity 100.0%;
49; Conservative 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity 100.
Matches 49; Conservative
TYPE: PRT
CORGANISM: Homo sapiens
US-10-680-287A-677
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ORGANISM: Homo sapiens
```

```
FEATURE:
NAME/KEY: SITE
LOCATION: (44)
OTHER INFORMATION: Xaa equals any of the naturally occurring L-amino acids
NAME/KEY: SITE
LOCATION: (205)
OTHER INFORMATION: Xaa equals any of the naturally occurring L-amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NAME/KEY: SITE
LOCATION: (212)
OTHER INFORMATION: Xaa equals any of the naturally occurring L-amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      . LOCATION: (226)
; OTHER INFORMATION: Xaa equals any of the naturally occurring L-amino acids US-09-925-302-548
61 QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNALVCTCYG 109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYG 49
                                                                                                                                                                                    RESULT 11
US-09-925-302-548

j Sequence 548, Application US/09925302

j Publication No. US20030064072A9

j GENERAL INFORMATION:

j APPLICANT: ROSen et al.

TITLE OF INVENTION: Nucleic Acids, Proteins and Antibodies

FILE REFERENCE: PA104

CURRENT APPLICATION NUMBER: US/09/925,302

CURRENT FILING DATE: 2001-08-10

PRIOR PILING DATE: 2000-03-08

PRIOR PILING DATE: 1999-03-12

NUMBER OF SEQ ID NOS: 896

SOFTWARE: Patentin Ver. 2.0

SEQ ID NO 548

LENGTH: 231
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               13 Score 271; DB 10; 11 SP 10; 12 SP 10; 13 SP 10; 14 SP 10; 17 SP 10; 17 SP 11; 16 SP 11; 17 SP 11; 18 SP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             98.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local Similarity 98.0 Matches 48; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity
Matches 48; Conserva
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-10-144-194A-52
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         d
                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                      LOCATION: (504)..(541)
OTHER INFORMATION: Type II fibronectin collagen-binding domain proteins domain
OTHER INFORMATION: identified by eMATRIX, accession number BL00023, p-value=8.920e-3
OTHER INFORMATION: raw score of 24.31
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FEATURE:
NAME/KEY: DOMAIN
LOCATION: (701)..(2267)
OTHER INFORMATION: Fibronectin type III domain identified by PFam, accession
OTHER INFORMATION: Parame find, E-value=3.1e-275, PFam score of 927.8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ; LOCATION: (226)
; OTHER INFORMATION: Xaa equals any of the naturally occurring L-amino acids US-09-925-302-548
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LOCATION: (44)
OTHER INFORMATION: Xaa equals any of the naturally occurring L-amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LOCATION: (205)
OTHER INFORMATION: Xaa equals any of the naturally occurring L-amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LOCATION: (212)
OTHER INFORMATION: Xaa equals any of the naturally occurring L-amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 2474;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           123 QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYG 171
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    49
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              JOHNSTON AND ANTIONAL AND ANTIONAL ANTI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            98.5%; Score 271; DB 9; Length 231; 98.0%; Pred. No. 1.6e-26; Live 0; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NAME/KEY: misc_feature
LOCATION: (1)...(2474)
COTHER INFORMATION: Xaa = X or * as defined in Table 2
US-10-450-763-2638
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     100.0%; Score 275; DB 18; 100.0%; Pred. No. 6.8e-26;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 10
US-09-925-302-548
Sequence 548, Application US/09925302
Patent No. US20020044941A1
GENERAL INFORMATION:
PRIOR FILING DATE: 2000-08-23
NUMBER OF SEQ ID NOS: 60736
SOFTWARE: CUSTOM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local Similarity 98.0
Matches 48; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               49; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                    ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                   NAME/KEY: DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NAME/KEY: SITE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NAME/KEY: SITE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NAME/KEY: SITE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NUMBER SOFTWARE: Pater SOFTWARE: Pater SEQ ID NO 548
                                                                                                                                       SEQ ID NO 52638
LENGTH: 2474
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LOCATION:
                                                                                                                                                                                                                                                 TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Š
```

ö

Gaps

. 0

1; Indels

Length 231;

```
ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   68 QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNALVCTCYG 116
61 QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNALVCTCYG 109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      49
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 463;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1; Indels
                                                                                                 US-10-144-194A-52

Sequence 52, Application US/10144194A

PUBLICATION NO. US20030215809A1

GENERAL INFORMATION:

APPLICANT: OriGene Technologies Inc

TITLE OF INVENTION: Regulated Breast Cancer Genes

FILE REFERENCE: 3U 103 R1

CURRENT APPLICATION NUMBER: US/10/144,194A

CURRENT FILING DATE: 2002-06-12

NUMBER OF SEQ ID NOS: 114

SOFTWARE: PatentIn version 3.0

SEQ ID NO 52
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 271; DB 15;
Pred. No. 3.4e-26;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
```

1 QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYG 49

ð,

```
g
                                                                                                                                            ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 1066, Application US/10741600

Publication No. US20050026169A1

GENERAL INFORMATION:

APPLICANT: CARGILL, Michele et al.

TITLE OF INVENTION: MYOCARDIAL INFARCTION, METHODS OF DETECTION AND USES THEREOF

TITLE OF INVENTION: MYOCARDIAL INFARCTION, METHODS OF DETECTION AND USES THEREOF

TITLE OF INVENTION: MYOCARDIAL INFARCTION, METHODS OF DETECTION AND USES THEREOF

CURRENT APPLICATION NUMBER: US/10/741,600

CURRENT FILING DATE: 2003-12-22

NUMBER OF SEQ ID NOS: 73997

SOFTWARE: FastSEQ for Windows Version 4.0

SEQ ID NO 1066

LENGTH: 642

TYPE: PRI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT: CARGILL.
TITLE OF INVENTION: GENETIC POLYMORPHISMS ASSOCIATED WITH
TITLE OF INVENTION: STENOSIS, METHODS OF DETECTION AND USES THEREOF
FILE REPERENCE: CLOO1500
CURRENT APPLICATION NUMBER: US/10/741,601
CURRENT FILING DATE: 2003-12-22
NUMBER OF SEQ ID NOS: 26415
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 354
LENGTH: 642
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     68 QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNALVCTCYG 116
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         49
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYG 49
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         32 QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNALVCTCYG 80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match 98.5%; Score 271; DB 16; Length 463; Best Local Similarity 98.0%; Pred. No. 3.4e-26; Matches 48; Conservative 0; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               98.5%; Score 271; DB 16; Length 642; 98.0%; Pred. No. 4.9e-26; ive 0; Mismatches 1; Indels (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYG
RESULT 13
US-10-491-566-52
i Sequence 52, Application US/10491566
; Publication No. US20040249144A1
; GENERAL INFORMATION:
GENERAL INFORMATION:
; APPLICANT: OriGene Technologies Inc
; TITLE OF INVENTION: Regulated Breast Cancer Genes
; FILE REFRENCE: 3U 103 R1
; CURRENT APPLICATION NUMBER: US/10/491,566
; SOFTWARE: PATENT OF SEQ ID NOS: 148
; SOFTWARE: PATENT OF SEQ ID NOS: 148
; SEQ ID NO 52
; LENGTH: 463
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 354, Application US/10741601
Publication No. US20040166519A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Best Local Similarity 98.0
Matches 48; Conservative
                                                                                                                                                                                                                                                                                                                                                                                      ; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-491-566-52
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 15
US-10-741-600-1066
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 14
US-10-741-601-354
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-10-741-601-354
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
```

```
; ORGANISM: Homo sapiens
US-10-741-600-1066
```

```
Query Match 98.5%; Score 271; DB 17; Length 642;
Best Local Similarity 98.0%; Pred. No. 4.9e-26;
Matches 48; Conservative 0; Mismatches 1; Indels 0; Gaps
```

ö

Search completed: September 30, 2005, 09:21:21 Job time : 37.0257 secs

(otqsu) Anole Blank (uspto)

```
190
1328
320
522
522
522
163
1195
111
111
111
110
62
110
110
1218
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.
                                               711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
711.6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NCBI_TaxID=9606;
269
267.5
264.5
254.5
256.5
228.5
228.5
172.5
159.5
159.5
151.5
14.8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     244
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           184
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Q7Z391
Q7Z391;
                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 1
Q7Z391
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               homo sapien
homo sapien
homo sapien
homo sapien
homo sapien
bomo sapien
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           brachydanio
brachydanio
brachydanio
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           homo sapien
bos taurus
mus musculu
mus musculu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        homo sapien
homo sapien
homo sapien
homo sapien
ambystoma m
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          mus musculu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              xenopus lae
xenopus lae
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          oryctolagus
brachydanio
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   rattus norv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         xenopus lae
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 sapien
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          mus musculu
                                                                                                                                                                                       (without alignments)
707.807 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                 September 30, 2005, 13:30:52 ; Search time 189.55 Seconds
                                                                                                                                                                                                                                                                                                              1 QAQQMVQPQSPVAVSQSKPG......TSVQTTSSGSGPFTDVRAAV 262
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Description
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0660086
06600271
0660027
066002
066002
066002
066002
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
0660003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
066003
0660003
0660003
0660003
0660003
0660003
0660003
0660003
0660003
0660003
0660003
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Q6pje5
Q6mzs0
Q68cx6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Q6n084
O02816
Q7t182
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Q7z391
Q6mzf4
                      GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                    1612378 segs, 512079187 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SUMMARIES
                                                                                                                                                                                                                                                              US-09-492-971B-15_COPY_4_265
1499
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Q7Z391
Q6MZF4
Q6NOA6
FINC_HUMAN
Q6MZUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FINC XENLA
Q6GQAS
                                                                                                                 OM protein - protein search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FINC BOVIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FINC MOUSE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FINC_RAT
Q8C6J7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Q68DT4
Q68DP9
Q6N025
Q68DP8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           093405
093406
06JAN2
06DD34
06MZM7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Q71U44
Q99KD0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Q8R3F3
Q7L553
Q6PJE5
Q6MZS0
Q68CX6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Q90XQ2
Q6N084
                                                                                                                                                                                                                                                                                                                                                                                    Gapop 10.0 , Gapext 0.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  UniProt_03:*
1: uniprot_sprot:*
2: uniprot_trembl:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 seq length: 0
seq length: 200000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query
Match Length DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2357
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2444
22240
22265
2477
2477
296
2481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              922
2478
2408
215
215
2193
412
216
810
                                                                                                                                                                                                                                                                                                                                                              BLOSUM62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1419.5
11419.5
11419.5
11382.5
11382.5
11023.6
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
1103.5
103.5
103.5
103.5
103.5
103.5
103.5
103.5
103.5
103.5
103.5
103.5
103.5
103.5
103.5
103.5
103.5
103.5
103.5
103.5
103.5
103.5
103.5
103.5
103.5
103.5
103.5
103.5
103.5
103.5
103.5
103.5
103.5
103.5
103.5
103.5
103.5
103.5
103.5
103.5
103.5
103.5
103.5
103.5
103.5
103.5
103.5
103.5
103.5
103.5
103.5
103.5
103.5
103.5
103.5
103.5
103.5
103.5
103.5
103.5
103.5
103.5
103.5
103.5
103.5
103.5
103.5
103.5
103.5
103.5
103.5
103.5
103.5
103.5
103.5
103.5
103.5
103.5
103.5
103.5
103.5
103.5
103.5
103.5
103.5
103.
                                                                                                                                                                                                                                                                                          Perfect score:
                                                                                                                                                                                                                                                                                                                                                              Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        14955
14995
14995
14995
14991
14991
14991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Minimum DB
Maximum DB
                                                                                                                                                                                                                                                                                                                Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                    Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Database
                                                                                                                                                                 Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Result
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Š
```

```
ö
                                                                                                                                                                                                                               equus cabal
homo sapien
gallus gall
brachydanio
bos taurus
bos taurus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EAEETCFDKYTGNTYRVGDTYERPKDSMIWDCTCIGAGRGRISCTIANRCHEGGQSYKIG 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 notophthalm
pleurodeles
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           oryctolagus
gallus gall
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  oryctolagus
homo sapien
                                                                                                                            bos taurus
canis famil
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     EAEETCFDKYTGNTYRVGDTYERPKDSMIWDCTCIGAGRGRISCTIANRCHEGGQSYKIG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DCTCLGEGSGRITCTSRNRCNDQDTRTSYRIGDTWSKKDNRGNLLQCICTGNGRGEWKCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYGGSRGFNCESKP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DTWRRPHETGGYMLECVCLGNGKGEWTCKPIAEKCFDHAAGTSYVVGETWEKPYQGWMMV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TISSUB=Human colon endothel primary cell culture;
Bloecker H., Boecher M., Mewes H.W., Weil B., Amid C., Osanger A., Fobo G., Han M., Wiemann S.;
Submitted (JUN-2003) to the EMBL/GenBank/DDBJ databases.
EMBL; BX538045; CAD97984.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Homo sapiens (Human).
Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Mammalia, Eutheria, Primates, Catarrhini, Hominidae, Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 .
0
091400
0951289
028274
028377
028377
093377
091122
071122
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
07120
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071200
071220
071220
071220
071220
071220
071220
071220
071220
07120
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071220
071200
071200
071200
071200
071200
071200
071200
071200
071200
071200
071200
071200
071200
071200
071200
071200
071200
071200
071200
071200
071200
071200
071200
071200
071200
071200
071200
071200
071200
071200
071200
071200
071200
071200
071200
071200
071200
071200
071200
071200
071200
071200
071200
071200
071200
071200
071200
071200
071200
071200
071200
071200
071200
071200
071200
071
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 749;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Hypothetical protein.
SEQUENCE 749 AA; 83524 MW; C8DDF97F3ED2F0DE CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         01-0CT-2003 (TrEMBLrel. 25, Created)
01-0CT-2003 (TrEMBLrel. 25, Last sequence update)
01-MAR-2004 (TrEMBLrel. 26, Last annotation update)
Hypothetical protein DKFZp686B18150.
Name-DKFZp686B18150;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ouery Match

99.7%; Score 1495; DB 2;
Best Local Similarity 99.6%; Pred. No. 3.1e-121;
Matches 261; Conservative 0; Mismatches 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ALIGNMENTS
FINC_NOTVI
PINC_PEBMA
PINC_PEBMA
PINC_CANFA
PINC_CANFA
PINC_CHICK
Q94367
PINC_CHICK
Q077277
Q077277
Q08209
Q09819
Q09819
Q09819
Q09819
M01747
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GO; GO: CONTROLL CONT
```

```
Local Similarity
                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                              NCBI_TaxID=9606;
                                                                                                                                      Q6N0A6;
05-JUL-2004
 241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            152
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               212
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                272
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
                                                                                                                      Q6N0A6
                                                                                       RESULT
                                                                                                     ઠ
                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ਨੇ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                             RG TISSUE=Human cervix;

RG TISSUE=Human cervix;

RG Amsorge W. Krieger S., Regiert T., Rittmueller C., Schwager B.,

RA Amsorge W., Krieger S., Regiert T., Rittmueller C., Schwager B.,

RA Amsorge W., Weil B., Amid C., Osanger A., Fobo G., Han M., Wiemann S.;

RB Amsorge W., Refeger S., Regiert T., Rittmueller C., Schwager B.,

RA Amsorge W., Weil B., Amid C., Osanger A., Fobo G., Han M., Wiemann S.;

RE Submitted (AUG-2003) to the EMBL/GenBank/DDBJ databases.

RE MBL, BK4640802; CAE48862.1; --

BR EMBL, BK4640802; CAE48862.1; --

BR InterPro; IPR00659; EGP Like.

BR InterPro; IPR00899; EGP Lile.

BR InterPro; IPR00899; FN III.

BR Ffam; PF00040; FN; FN III.

BR Ffam; PF00040; FN; PN III.

BR FRINTS; PR00013; FNTYPEI.

BR RINTS; PR000013; FNTYPEI.

BR RART; SM00069; FNI; 9.

BR SWART; SM00069; FNI; 9.

BR RROSITE; PS00022; EGF I; UNKNOWN I.

BR PROSITE; PS0022; EGF I; UNKNOWN I.

BR PROSITE; PS0023; FIBRONECTIN I; 9.

BR PROSITE; PS0023; FIBRONECTIN I; 9.

BR PROSITE; PS0023; FRIBRONECTIN I; 9.

BR PROSITE; PS0022; FRIBRONECTIN I; 9.

BR PROSITE; PS0023; FRIBRONECTIN I; 9.

BR PROSITE; PS0023; FRIBRONECTIN I; 9.

BR PROSITE; PS0023; FRIBROMECTIN I; 9.

BR PROSITE; PS0023; FRIBRONECTIN II.

BR PROSITE; PS0023; FRIBROMECTIN II.

BR PROSITE; PS0023; FRIBROMECTIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          121 QAQQWVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNALVCTCYGGSRGFNCESKP 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EAEETCFDKYTGNTYRVGDTYERPKDSMIMDCTCIGAGRGRISCTIANRCHEGGGSYKIG 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DTWRRPHETGGYMLECVCLGNGKGEWTCKPIAEKCFDHAAGTSYVVGETWEKPYQGWMMY 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DCTCLGEGSGRITCTSRNRCNDQDTRTSYRIGDTWSKKDNRGNLLQCICTGNGRGEWKCE 360
304 DCTCLGEGSGRITCTSRNRCNDQDTRTSYRIGDTWSKKDNRGNLLQCICTGNGRGEWKCE 363
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           EAEETCFDKYTGNTYRVGDTYERPKDSMIWDCTCIGAGRGRISCTIANRCHEGGQSYKIG 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DTWRRPHETGGYMLECVCLGNGKGEWTCKPIAEKCFDHAAGTSYVVGETWEKPYQGWMWV 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DCTCLGEGSGRITCTSRNRCNDQDTRTSYRIGDTWSKKDNRGNLLQCICTGNGRGEWKCE 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYGGSRGFNCESKP
                                                                                                                                                                                     05-JUL-2004 (TrEMBLrel. 27, Created)
05-JUL-2004 (TrEMBLrel. 27, Last sequence update)
05-JUL-2004 (TrEMBLrel. 27, Last annotation update)
Hypothetical protein DKFZp686K139 (Hypothetical protein DKFZp686F?19)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                             Homo sapiens (Human).
Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Mammalia, Eutheria, Primates, Catarrhini, Hominidae, Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 1103;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1103 AA; 122113 MW; 82FEC4CAF634AD56 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 1495; DB 2;
Pred. No. 4.6e-121;
                                                                                                                                                      PRT; 1103 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0; Mismatches
                                                                                                                                                                                                                                                                            Name=DKFZp686K139; Synonyms=DKFZp686F219;
                                241 RHTSVQTTSSGSGPFTDVRAAV 262
                                                    364 RHTSVOTTSSGSGPFTDVRAAV 385
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 99.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   261; Conservative
                                                                                                                                                        PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                 NCBI_TaxID=9606;
                                                                                                                                                                                                                                                              (Fragment)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Matches
                                                                                                                      RESULT 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           a
                                                                                                                                                                        유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Š
                                                                 ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
                                ò
```

```
DTWRRPHETGGYMLECVCLGNGKGEWTCKPIAEKCFDHAAGTSYVVGETWEKPYQGWMV 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       EAEETCFDKYTGNTYRVGDTYERPKDSMIWDCTCIGAGRGRISCTIANRCHEGGQSYKIG 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DIWRRPHETGGYMLECVCLGNGKGEWTCKPIAEKCFDHAAGTSYVVGETWEKPYQGWMMV 211
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    EAEETCFDKYTGNTYRVGDTYERPKDSMIWDCTCIGAGRGRISCTIANRCHEGGQSYKIG 151
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              REPERLER FROM N.A.

TISSUBE-Human uterus endothel primary cell culture;

THE German Human cDNA Consortium;

RA Bloecker H., Boecher M., Mewes H.W., Weil B., Amid C., Osanger A.,

ROG G., Han M., Wiemann S.,

RE Submitted (AUG-2003) to the EMBL/GenBank/DDBJ databases.

REMEL, RSK406089 CAR45714.1;

ROG, GO:0005576; C:extracellular; IEA.

RICEPTO: IPR0002086; Aldehyd.dehydrog.

RICEPTO: IPR000039; Fibril.

RICEPTO: IPR000039; Fibril.

RICEPTO: IPR0003961; FN III-1ike.

RICEPTO: IPR0003961; FN III-1ike.

RICEPTO: IPR0003961; FN III-1ike.

RICEPTO: RP000401; fn3; 12.

REAM: PR000401; fn3; 12.

REAM: PR000401; FNTYPEI.

REAM: RN00058; FN TYPEI.

REAM: RN00058; FN TYPEI.

REAM: RN00058; FN TYPEI.

REAM: RN00058; FN TYPEI.

REAM: SN00059; FN TYPEI.

REAM: SNO0059; FN TYPEI.

REAM: SNO0059; FN TYPEI.

REAM: SNO0059; FN TYPEI.

REAM: SNO0059; FN TYPEI.

REAM: SNOO059; FN TYPEI.

REAM: SNART: SNOON59; FN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               32 QAQQWVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNALVCTCYGGSRGFNCESKP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DCTCLGEGSGRITCTSRNRCNDQDTRTSYRIGDTWSKKDNRGNLLQCICTGNGRGEWKCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYGGSRGFNCESKP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Homo sapiens (Human).
Bukaryota, Metazoa, Chordata, Craniata, Vertebrata, Buteleostomi,
Mammalia, Butheria, Primates, Catarrhini, Hominidae, Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 2296;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Hypothetical protein.
SEQUENCE 2296 AA: 252761 MW; 9AB2D723CC0CED70 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                    05-JUL-2004 (TrEMBLrel. 27, Created)
05-JUL-2004 (TrEMBLrel. 27, Last sequence update)
05-JUL-2004 (TrEMBLrel. 27, Last annotation update)
Hypothetical protein DKF2p686M04163.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        99.7%; Score 1495; DB 2;
99.6%; Pred. No. 9.5e-121;
iive 0; Mismatches 1;
                                                                                                                                                                                                                                                                                               PRT; 2296 AA
361 RHISVQITSSGSGPFTDVRAAV 382
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RHTSVQTTSSGSGPFTDVRAAV 262
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RHTSVOTTSSGSGPFTDVRAAV 293
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Matches 261; Conservative
                                                                                                                                                                                                                                                                                          PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Name=DKFZp686M04163;
```

ö

```
SEQUENCE OF 1-49 FROM N.A. MEDLINE=87175578; PubMed=3031656; Dean D.C., Bowlus C.L., Bourgeois S.; "Cloning and analysis of the promotor region of the human fibronectin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE OF 973-2386 FROM N.A. (ISOFORM 3).
MEDLINE=84272258; PubMed=6462919;
Kornblihtt A.R., Vibe-Pedersen K., Baralle F.E.;
Human fibronectin: cell specific alternative mRNA splicing generates
polypeptide chains differing in the number of internal repeats.";
Nucleic Acids Res. 12:5853-5868(1984).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 [6]
SEQUENCE OF 103-481 AND 2228-2386 FROM N.A. (ISOFORMS 1; 3; 8 AND 9).
TISSUE-Peripheral blood T-cell, and Umbilical vein endothelial cells;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE OF 1-38 FROM N.A. MEDLINE=8730189; DOI=10.1016/0014-5793(86)80029-1; MEDLINE=87301890; PubMed=3770189; DOI=10.1016/0014-5793(86)80029-1; Gutaman A., Yamada K.M., Kornblihtt A.R.; "Human fibronectin is synthesized as a pre-propolypeptide."; FEBS Lett. 207:145-148(1986).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MEDLINE=88233940; PubMed=3375063;
Paolella G., Henchcliffe C., Sebastio G., Baralle F.E.;
"Sequence analysis and in vivo expression show that alternative splicing of ED-B and ED-A regions of the human fibronectin gene are independent events.";
Nucleic Acids Res. 16:3545-3557(1988).
                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A. (ISOFORM 2).
MEDLINE-21600194; PubMed=11737888; DOI=10.1186/bcr325;
SCHOA S.L., SCHOA A.M.;
"Phenotypic and genetic alterations in mammary stroma: implications
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE OF 28-2386 FROM N.A. (ISOFORM 3).
MEDLINE=85284965; PubMed=2992339;
Kornblihtt A.R., Umezawa K., Vibe-Pedersen K., Baralle F.E.;
"Primary structure of human fibronectin: differential splicing may generate at least 10 polypeptides from a single gene.";
EMBO J. 4:1755-1759(1985).
                                                                                                                                                                                                                                                                                            Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Buteleostomi,
Mammalia, Eutheria, Primates, Catarrhini, Hominidae, Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TISSUE=Cervix;
Ansorge W., Krieger S., Regiert T., Rittmueller C., Schwager B.,
Mewes H.-W., Weil B., Amid C., Osanger A., Fobo G., Han M.,
                                                                                 FINC HUMAN STANDARD; PRT; 2386 AA.
P02751; 095609; 095610; 014312; 014325; 014326; Q86T27; Q8IVI8; Q96KP7; Q95609; 095610; Q914312; Q91487; Q910MKZ; 21-UL-1986 (Rel. 01, Created) 01-NOV-1997 (Rel. 35, Last sequence update) 25-OCT-2004 (Rel. 45, Last annotation update) Fibronectin precursor (FN) (Cold-insoluble globulin) (CIG).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Wiemann S.;
Submitted (JUN-2003) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Godfrey H.P., Ebrahim A.A.;
Submitted (DEC-1995) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Proc. Natl. Acad. Sci. U.S.A. 84:1876-1880(1987).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (ISOFORM 11).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE OF 1232-1782 FROM N.A. (ISOFORM 7).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A. (ISOFORMS 3; 7 AND 10).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     for tumour progression.";
Breast Cancer Res. 3:373-379(2001).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE OF 1257-1365 FROM N.A. (
MEDLINE=88041070; PubMed=3478690;
                                                                                                                                                                                                                                                                           (Human)
                                                                                                                                                                                                                                                                                                                                            NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                        Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            gene.
                                                                                           ALD DTT ACC REPORTED TO THE REPORT OF THE RE
```

```
SEQUENCE OF 1712-1739 FROM N.A.
MEDLINE=87026578; PubMed=3021206;
Sekiguchi K., Klos A.M., Kurachi K., Yoshitake S., Hakomori S.;
"Human liver fibronectin complementary DNAs: identification of two
different messenger RNAs possibly encoding the alpha and beta subunits
of plasma fibronectin.";
                                                                                                                                                                                  SEQUENCE OF 1441-1548.
MEDILME-8225664; PubMed=7050098;
Pierschbacher M.D., Ruoslahti E., Sundelin J., Lind P., Peterson P.A.;
"The cell attachment domain of fibronectin. Determination of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE OF 32-290.
MEDINES-84032465; PubMed=6630202;
GARCIA-Pardo A., Pearlstein E., Frangione B.;
"Primary structure of human plasma fibronectin. The 29,000-dalton NH2-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE OF 309-608, AND COLLAGEN-BINDING.
MEDLINE=87080265; PubMed=3024962;
Owens R.J., Baralle F.E.;
"Mapping the collagen-binding site of human fibronectin by expression in Escherichia coli.";
EMBO J. 5:2825-2830(1986).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MEDLINE=83290929; PubMed=6688418; Oldberg A., Linney E., Rucelahti E.; Molerg A., Linney E., Rucelahti E.; Molecular cloning and nucleotide sequence of a cDNA clone coding for the cell attachment domain in human fibronectin."; J. Biol. Chem. 258:10193-10196 (1983).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE OF 1448-1540 FROM N.A.
MEDILINE-8611901; PubMed=3003095;
Oldberg A., Ruoslahti E.;
"Evolution of the fibronectin gene. Exon structure of cell attachment
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             þ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Liu M.C., Yu S., Sy J., Redman C.M., Lipmann F., "Tyrosine sulfation of proteins from the human hepatoma cell line
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE OF 1594-2386 FROM N.A. (ISOFORM 1).
MEDLINE-85280409; PubMed=2992573;
Bernard M.P., Kolbe M., Weil D., Chu M.-L.;
"Human cellular fibronectin: comparison of the carboxyl-terminal portion with rat identifies primary structural domains separated hypervariable regions.";
Biochemistry 24:2698-2704(1985).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MEDLINE=22126816; PubMed=12127832; DOI=10.1053/joca.2002.0792; Parker A.E., Boutell J., Carr A., Maciewicz R.A.; "Novel cartilage-specific splice variants of fibronectin."; Osteoarthritis Cartilage 10:528-534(2002).
Gutman A., Kornblihtt A.R.;
"Identification of a third region of cell-specific alternative splicing in human fibronectin mRNA.";
Proc. Natl. Acad. SCI. U.S.A. 84:7179-7182(1987).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            O-GLYCOSYLATION OF THR-2064.
MEDLINE=91190085; PubMed=2012601;
Tressel T., McCarthy J.B., Calaycay J., Lee T.D., Legesse K.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 .
9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE OF 1788-2386 FROM N.A. (ISOFORMS 4; 5 AND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Proc. Natl. Acad. Sci. U.S.A. 82:7160-7164(1985)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 J. Biol. Chem. 258:12670-12674(1983).
                                                                                                                                                                                                                                                                                                                                  primary structure.";
J. Biol. Chem. 257:9593-9597(1982)
[11]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    domain.";
J. Biol. Chem. 261:2113-2116(1986)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MEDLINE=86042625; PubMed=2414772;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Biochemistry 25:4936-4941(1986).
                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE OF 1448-1540 FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TISSUE=Cartilage;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SULFATION
```

Sep 30 14:33:33 2005

240

```
DCTCLGEGSGRITCTSRNRCNDQDTRTSYRIGDTWSKKDNRGNLLQCICTGNGRGEWKCE 240
DTWRRPHETGGYMLECVCLGNGKGEWTCKPIAEKCFDHAAGTSYVVGETWEKPYQGWMWV 211
                                                                           DCTCLGEGSGRITCTSRNRCNDQDTRTSYRIGDTWSKKDNRGNLLQCICTGNGRGEWKCE 271
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DCTCLGEGSGRITCTSRNRCNDQDTRTSYRIGDTWSKKDNRGNLLQCICTGNGRGEWKCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                EAEETCFDKYTGNTYRVGDTYERPKDSMIWDCTCIGAGRGRISCTIANRCHEGGQSYKIG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   92 BAEETCFDKYTGNTYRVGDTYERPKDSMIWDCTCIGAGRGRISCTIANRCHEGGQSYKIG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DIWRRPHETGGYMLECVCLGNGKGEWICKPIAEKCFDHAAGISYVVGETWEKPYQGWMMV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     32 QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNALVCTCYGGSRGFNCESKP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYGGSRGFNCESKP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 2477;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Hypothetical protein.
SEQUENCE 2477 AA; 272335 MW; D358D85C6B18207C CRC64;
                                                                                                                                                                                                                                                                                                             05-JUL-2004 (TrEMBLrel. 27, Last sequence update) 05-JUL-2004 (TrEMBLrel. 27, Last annotation update) Hypothetical protein DKFZp68601166.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            UNKNOWN 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     99.7%; Score 1495; DB 2; 99.6%; Pred. No. 1e-120; iive 0; Mismatches 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TISSUE=Human endometrium carcinoma cell line;
                                                                                                                                                                                                                                                        PRT; 2477 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PROSITE; PSO0687; ALDEHYDE DEHYDR GLU; PROSITE; PSO0022; EGF 1; UNKNOWN 2. PROSITE; PSO10253; FIBRONECTIN 1; 12. PROSITE; PSO0023; FIBRONECTIN 2; 2. PROSITE; PSO0853; FN3; 17.
                                                                                                                                                                                                                                                                                               Created)
                                                                                                                    RHISVQTISSGSGPFTDVRAAV 262
                                                                                                                                        The German Human cDNA Consortium
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Pfam; PF00041; fn3; 17.
PRINTS; PR00013; PNTYPEII.
PRODOM; PD000999; FN_Type_II; 2.
SMART; SM00059; FN1; 12.
                                                                                                                                                                                                                                                                                               (TrEMBLrel. 27,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Matches 261; Conservative
                                                                                                                                                                                                                                                          PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SMART; SM00059; FN2;
SMART; SM00060; FN3;
                                                                                                                                                                                                                                                                                                                                                                                                 Homo sapiens (Human)
                                                                                                                                                                                                                                                                                                                                                                            Name=DKFZp68601166;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                    NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                               05-JUL-2004
  152
                                                                           212
                                                                                                                    241
                                                                                                                                                        272
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  152
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       181
                                      181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
                                                                                                                                                                                                                                                          Q6MZU5
                                                                                                                                                                                                                 RESULT 5
                                                                                                                                                                                                                                    음
                                    ò
                                                                           a
                                                                                                                  ઠે
                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8
  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EAEETCFDKYTGNTYRVGDTYERPKDSMIWDCTCIGAGRGRISCTIANRCHEGGQSYKIG 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EAEETCFDKYTGNTYRVGDTYERPKDSMIWDCTCIGAGRGRISCTIANRCHEGGGSYKIG 151
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DTWRRPHETGGYMLECVCLGNGKGEWTCKPIAEKCFDHAAGTSYVVGETWEKPYQGWMVV 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     91
                                                                                                                                                                                                                                                                                                                                                                                                           PubMed=9501082; DOI=10.1093/emboj/17.6.1606; Sasaki T., Brakebusch C., Engel J., Timpl R.; "Mac-2 binding protein is a cell-adhesive protein of the extracellular matrix which self-assembles into ring-like structures and binds betal integrins, collagens and fibronectin."; EMBO J. 17:1606-1613(1998).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYGGSRGFNCESKP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     32 QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNALVCTCYGGSRGFNCESKP
                                                                                                                MEDLINE=93015879; PubMed=1400330; Balbona K., Tran H., Godyna S., Ingham K.C., Strickland D.K., Argraves W.S.; Ingham to the carboxyl-terminal heparin-binding "Fibulin binds to itself and to the carboxyl-terminal heparin-binding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                        CHARACTERIZATION OF FIBRIN-BINDING SITE 1.
MEDINE=99081153; PubMed=198366;
ROSTEAGN A., Williams M.J., Baron M., Campbell I.D., Gold L.I.;
"Further characterization of the NH2-terminal fibrin-binding site on
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STRUCTURE BY NMR OF 1447-1540.
MEDLINE=92162710; PubMed=1311202;
Baron M., Main A.L., Driscoll P.C., Mardon H.J., Boyd J.,
Campbell I.D.;
"IH NMR assignment and secondary structure of the cell adhesion type
III module of fibronectin.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Campbell I.D.;
of the factor XIIIa crosslinking
fibronectin.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MEDLINE=93046665; PubMed=1423622; DOI=10.1016/0092-8674(92)90600-H; Main A.L., Harvey T.S., Baron M., Boyd J., Campbell I.D.; "The three-dimensional structure of the tenth type III module of fibronectin: an insight into RGD-mediated interactions."; cell 71:671-678(1992).
                  "Human plasma fibronectin. Demonstration of structural differences between the A- and B-chains in the III CS region."; Biochem. J. 274:731-738(1991).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Campbell I.D.;
"Solution structure of a pair of fibronectin type 1 modules with fibrin binding activity.";
J. Wol. Biol. 235:1302-1311(1994).
[26]
STRUCTURE BY NWR OF 32-92.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 2386;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MEDLINE=94141923; PubMed=8308892;
Williams M.J., Phan I., Harvey T.S., Rostagno A., Gold L.I.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   99.7%; Score 1495; DB 1;
99.6%; Pred. No. 9.9e-121;
iive 0; Mismatches 1;
                                                                                                                                                                                                                                                                                                                                                      Biol. Chem. 269:31938-31945(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MEDLINE=96669779; PubMed=7883666;
Potts J.R., Phan I., Williams M.J.,
"High-resolution structural studies
site and the first type I module of
Nat. Struct. Biol. 2:946-950(1995).
                                                                                                                                                                                               region of fibronectin.";
J. Biol. Chem. 267:20120-20125(1992)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Biochemistry 31:2068-2073(1992).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                [24]
STRUCTURE BY NMR OF 1447-1540.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STRUCTURE BY NMR OF 182-275
                                                                                                                                                                                                                                                                                                                                                                                               INTERACTION WITH LGALS3BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity 99.6
Matches 261; Conservative
  Pande H.;
                                                                                               FBLN1-BINDING SITE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Н
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         121
```

ö

180

211

g ð

ò

ò

120 151

```
92 BABETCFDKYTGNTYRVGDTYERPKDSMIMDCTCIGAGRGRISCTIANRCHEGGQSYKIG 151
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DTWRRPHETGGYMLECVCLGNGKGEWTCKPIAEKCFDHAAGTSYVVGETWEKPYQGWMMV 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DCTCLGEGSGRITCTSRNRCNDQDTRTSYRIGDTWSKKDNRGNLLQCICTGNGRGEWKCE 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      EABETCFDKYTGNTYRVGDTYERPKDSMIWDCTCIGAGRGRISCTIANRCHEGGQSYKIG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DCTCLGEGSGRITCTSRNRCNDQDTRTSYRIGDTWSKKDNRGNLLQCICTGNGRGEWKCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DTWRRPHETGGYMLECVCLGNGKGEWTCKPIAEKCFDHAAGTSYVVGETWEKPYQGWMWV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYGGSRGFNCESKP
                                                                                                                                                                                                                                                                                                                                                                                           RC TISSUB-Iterus endochel;

RG THE German CDNA CONSOrtium;

RA Kochter K., Beyer A., Mewes H.W., Weil B., Amid C., Osanger A.,

RA Kochter K., Beyer A., Mewes H.W., Weil B., Amid C., Osanger A.,

RA Submitted (AUG-2004) to the EMBL/GenBank/DDBJ databases.

RUBLIC (R749316; CAH18171.1; -.

BREI, (R749316; CAH18171.1; -.

BRITE-PRO1 IPRO0009; ET Ilie.

INTER-PRO1 IPRO0009; FIDENCIAL.

BRITE-PRO1 IPRO0009; FIDENCIAL.

BRINTS; PRO0012; FINTYPEII.

BRINTS; PRO0014; FINTYPEII.

BRINTS; PRO0014; FINTYPEII.

BRINTS; PRO0014; FINTYPEII.

BRINTS; PRO0015; FINTYPEII.

BRINTS; PRO0015; FINTYPEII.

BRINTS; PRO00166; FINI; 12.

BRART; SMO0066; FINI; 12.

BROSITE; PRO0022; EGF I; UNKNOWN_I.

BROSITE; PRO0023; FIBRONECTIN.1; 12.

BROSITE; PRO0023; FIBRONECTIN.2; 2.

Hypotherical protein.

SEQUENCE 2267 AA; 249358 MW; C4D124A038C323DF CRC64;
                                                                                                                                                                  25-OCT-2004 (TrEMBLrel. 28, Created)
25-OCT-2004 (TrEMBLrel. 28, Last sequence update)
25-OCT-2004 (TrEMBLrel. 28, Last sequence update)
25-OCT-2004 (TrEMBLrel. 28, Last annotation update)
Hypothetical protein DKFZp686K08164.
Name-DKFZp686K08164;
Mame-DKFZp686K08164;
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Butheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 2267;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               99.5%; Score 1491; DB 2; 99.2%; Pred. No. 2.1e-120; ative 1; Mismatches 1;
                                                                                                                               Ź
                                                                                                                               2267
  364 RHTSVQTTSSGSGPFTDVRAAV 385
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RHTSVQTTSSGSGPFTDVRAAV 262
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Best Local Similarity 99.2
Matches 260; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Similarity
                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                    NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 152
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     212
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      272
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
                                                                                                                                                Q68DP9;
                                                                                                                             Q68DP9
                                                                                     RESULT 7
Q68DP9
                          셤
                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            184 EAEETCFDKYTGNTYRVGDTYERPKDSMIWDCTCVGAGRGRISCTIANRCHEGGQSYKIG 243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              124 QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNALVCTCYGGSRGFNCESKP 183
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      EAEETCFDKYTGNTYRVGDTYERPKDSMIWDCTCIGAGRGRISCTIANRCHEGGQSYKIG 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DTWRRPHETGGYMLECVCLGNGKGEWTCKPIAEKCFDHAAGTSYVVGETWEKPYQGWMMV 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 244 DTWRRPHETGGYMLECVCLGNGKGEWTCKPIAEKCFDHAAGTSYVVGETWEKPYQGWMWV 303
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DCTCLGEGSGRITCTSRNRCNDQDTRTSYRIGDTWSKKDNRGNLLQCICTGNGRGEWKCE 240
212 DCTCLGEGSGRITCTSRNRCNDQDTRTSYRIGDTWSKKDNRGNLLQCICTGNGRGEWKCE 271
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYGGSRGFNCESKP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                   TISSUELCE FROM N.A.

TISSUELCterus endothel;
TISSUE-Uterus endothel;
THE German CDNA CORSOTTIUM;
THE German CDNA CORSOTTIUM;
THE German CDNA CORSOTTIUM;
THE GERMAN CONSOTTIUM;
THE PROJUCT TROUGOSO TO THE EMBL/GenBank/DDBJ databases.
THE FMBL; CR749281; CAH18136.1; -''
THE FMBL; CR749281; CAH18136.1; -''
THE FPC; IPRO02086; Aldehyd dehydrog.
THE FPC; IPRO02086; Jedring.
THE FPC; IPRO03962; FILIT subd.
THE FPC; IPRO03962; FILIT subd.
THE FPC; IPRO03962; FN III.
THE FPC; IPRO0
                                                                                                                                                                                                                                                                                                                                       Homo sapiens (Human).
Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Mammalia, Eutheria, Primates, Catarrhini, Hominidae, Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match 99.7%; Score 1494; DB 2; Length 2357; Best Local Similarity 99.2%; Pred. No. 1.2e-120; Matches 260; Conservative 1; Mismatches 1; Indels 0.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Hypothetical protein. - SEQUENCE 2357 AA; 259090 MW; BEAE3990E27E532A CRC64;
                                                                                                                                                                                                                           25-0CT-2004 (TrEMBLrel. 28, Created)
25-0CT-2004 (TrEMBLrel. 28, Last sequence update)
25-0CT-2004 (TrEMBLrel. 28, Last annotation update)
Hypothetical protein DKFZp686F10164.
Name=DKFZp686F10164;
                                                                                                                                                                                            2357 AA
                                       RHTSVQTTSSGSGPFTDVRAAV 262
                                                                                                                                                                                        PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                    NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  304
                                                                                                                                                                  ઠે
                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
```

91

Gaps

ö

211

```
PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 92
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     152
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              272
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 10
 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                         RC TIGSUE=Human modmetrium carcinoma cell line;

TIGSUE=Human modmetrium carcinoma cell line;

TIGSUE=Human modmetrium carcinoma cell line;

TIGSUE=Human modmetrium;

A Ablert R., Moosmayer P., Schupp I., Wellenreuther R.,

RA Mewes H.W., Weil B., Amid C., Osanger A., Fobo G., Han M., Wiemann S.;

RL SUDmitted (AUG-2003) to the EmBL/GenBank/DDBJ databases.

BMEL; BX640731; CAR55847.1; -..

BMEL; BX640731; CAR55847.1; -..

BMEL; BX640731; CAR55847.1; -..

BMENTE; BX600556; Clextracellular; IEA.

InterPro; IPR00059; EGF_like.

BMENTEPPO; IPR00059; FM_TYPE_II.

BMENTEPPO; IPR00059; FN_TYPE_II.

BMENTE; PR00040; fn2; 2.

BMENTS; PR00040; fn2; 2.

BMENTS; PR00040; fn2; 2.

BMENTS; SM00059; FNI; 12.

BMENTS; SM0059; FNI; 12.

BMENTS; SM00059; FNI; 12.

BMENTS; SM00059; FNI; 12.

BMENTS; SM00059; FNI; 12.

BMENTS; SM00059; FNI; 12.

BMENTS; FNI; 12.

BM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  121 QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNALVCTCYGGSRGFNCESKP 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        181 BAEETCFDKYTGNTYRVGDTYERPKDSMIWDCTCIGAGRGRISCTIANRCHEGGGSYKIG 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  61 BAEETCFDKYTGNTYRVGDTYERPKDSMIWDCTCIGAGRGRISCTIANRCHEGGQSYKIG 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DTWRRPHETGGYMLECVCLGNGKGEWTCKPIAEKCFDHAAGTSYVVGETWEKPYQGWMWV 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DCTCLGEGSGRITCTSRNRCNDQDTRTSYRIGDTWSKKDNRGNLLQCICTGNGRGEWKCE 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DTWRRPHETGGYMLECVCLGNGKGEWTCKPIAEKCFDHAAGTSYVVGETWEKPYQGWMWV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DCTCLGEGSGRITCTSRNRCNDODTRISYRIGDTWSKKDNRGNLLOCICTGNGRGEWKCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYGGSRGFNCESKP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                            Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Buteleostomi,
Mammalia, Eutheria, Primates, Catarrhini, Hominidae, Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 2444;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2444 AA; 268676 MW; 71C5E8C56A84C7BC CRC64;
                                                                                   05-JUL-2004 (TrEMBLrel. 27, Created)
05-JUL-2004 (TrEMBLrel. 27, Last sequence update)
05-JUL-2004 (TrEMBLrel. 27, Last annotation update)
Hypothetical protein DKFZp686M2451 (Fragment).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 1491; DB 2;
Pred. No. 2.3e-120;
0; Mismatches 2;
                                                     2444 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RHTSVQTTSSGSGPFTDVRAAV 262
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity 99.2%;
Matches 260; Conservative
                                                   PRELIMINARY;
                                                                                                                                                                           Homo sapiens (Human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Hypothetical protein
                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A.
                                                                                                                                                                                                                             NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   361
                RESULT 8
                                   Q6N025
                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ð
```

RESULT O

```
RA The German CDAM CONDENTIUM:

RA Mewes H.W., Weil B., Amid C., Osanger A., Pobo G., Han M., Wiemann S.;

RA Mewes H.W., Weil B., Amid C., Osanger A., Pobo G., Han M., Wiemann S.;

RE Submitted (Adv-2004) to the EMBL/GenBank/DDBJ databases.

RE SUBL; CR749317; CAH18172.1; -

DR InterPro; IPR002086; Aldehyd_dehydrog.

RINTERPO; IPR003962; FILIT Subd.

RINTERPO; IPR003962; FN III Subd.

REAM: PR00040; FN; FN III.

DR PÉAM; PR00041; FN III.

REAM: PR00040; FN III.

DR PRINTS; PR00013; FNTYPEII.

DR PRINTS; PR00013; FNTYPEII.

DR PRINTS; PR00014; FNTYPEII.

DR SWART; SW00069; FN2; 2.

DR SWART; SW00069; FN2; 2.

DR SWART; SW00069; FN2; 2.

DR SWART; SW00069; FN3; 15.

DR PROSITE; PS00023; FIBRONECTIN 1; 10.

PROSITE; PS00023; FIBRONECTIN 1; 10.

PROSITE; PS00023; FIBRONECTIN 2; 2.

RW HYDOTHELCAL DFOLEIN.

RW PROSITE; PS00023; FIBRONECTIN 2; 2.

RW HYDOTHELCAL DFOLEIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          EAEETCFDKYTGNTYRVGDTYERPKDSMIWDCTCIGAGRGRISCTIANRCHEGGQSYKIG 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DIWRRPHETGGYMLECVCLGNGKGEWTCKPIAEKCFDHAAGTSYVVGETWEKPYQGWMMV 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           EAEETCFDKYTGNTYRVGDTYERPKDSMIWDCTCIGAGRGRISCTIANRCHEGGGSYKIG 151
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DIWRRPHETGGYMLECYCLGNGKGEWTCKPIAEKCPDHAAGTSYVVGETWEKPYQGWMV 211
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DCTCLGEGSGRITCTSRNRCNDQDTRTSYRIGDTWSKKDNRGNLLQCICTGNGRGEWKCE 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYGGSRGFNCESKP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                          Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ·.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 2240;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3; Indels
                              Last sequence update)
Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 1474; DB 2;
Pred. No. 6.2e-119;
0; Mismatches 3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Æ
        Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RHTSVQTTSSGSGPFTDVRAAV 262
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          25-OCT-2004 (TrEMBLrel. 28, Creater 25-OCT-2004 (TrEMBLrel. 28, Last st 25-OCT-2004 (TrEMBLrel. 28, Last ar Hypothetical protein DKFZp686H0342.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              98.3%; Scor
98.9%; Pred
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FINC_BOVIN
ID FINC BOVIN STANDARD;
AZ 07589;
DT 01-APR-1988 (Rel. 07, Created)
                                                                                                                                                                                                                                                                                                    TISSUE=Amygdala;
The German cDNA Consortium;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Best Local Similarity 98.9
Matches 259; Conservative
                                                                                                                                            Homo sapiens (Human).
                                                                                                                Name=DKFZp686H0342;
                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.
                                                                                                                                                                                                                   NCBI_TaxID=9606;
```

```
PRINTS; PRO0012; FNTYPEII.

RR PRINTS; PRO0012; FNTYPEII.

RR PRINTS; PRO0013; FNTYPEII.

PROSITE; PRO0021; EGF 1; 2.

R PROSITE; PS0022; EGF 1; 2.

R PROSITE; PS0023; FIBRONECTIN_1; 12.

R PROSITE; PS0023; FN3; 15.

R 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Fibronectin type-III 14.
Connecting strand 3 (CS-3) (N Fibronectin type-II 15.
Fibronectin type-I 10.
Fibronectin type-I 11.
Fibronectin type-I 11.
                                                                                                                                                                                                                                                                                                                                                                                         Fibronectin type-1.
Fibronectin type-11.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Cell attachment site
                                                                                                                                                                                                                                                                                                                                   Cell-attachment.
Heparin-binding 2
Fibrin-binding 2.
                                                                                                                                                                                                                                                                                              Collagen-binding
  PF00041; fn3; 15.
                                                                                                                                                                                                                                                                          241
1147
11509
11870
2216
59
107
1197
1197
1197
1314
333
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          47
56
94
104
138
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          148
1194
1233
1304
1311
1325
1340
1415
1407
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1235
1326
1416
1510
1602
1692
1781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1979
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2128
2172
2172
1493
21
21
45
66
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1110
136
182
182
200
227
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DOMAIN
DNA_BIND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DISULFID
DISULFID
DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DISULFID
DISULFID
DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DISULPID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DISULFID
                                                                                                                                                                                                                                                                                                                                     DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DOMAIN
DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DOMAIN
DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DOMAIN
                                                                                                                                                                                                                                                                                                                                                                             DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                   DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                          DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DOMAIN
  This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Proc. Natl. Acad. Sci. U.S.A. 80:3218-3222(1983).

-!- FUNCTION: Fibronectins bind cell surfaces and various compounds including collagen, fibrin, heparin, DNA, and actin. Fibronectins are involved in cell adhesion, cell motility, opsonization, wound care involved in cell adhesion, cell motility, opsonization, wound care involved in cell adhesion, cell shape.

-!- SUBGNIT: Mostly heterodimers or multimers of alternatively spliced variants, connected by 2 disulfide bonds near the carboxyl ends; co a lesser extend homodimers.

-!- SUBCELLULAR LOCATION: Screted; extracellular matrix.

-!- ALTERNATIVE PRODUCTS:

Comment=A number of isoforms are produced. Each of the "extra domain" and the connecting strand 3 are present in some forms of fibronectin and absent in others;
                                                                                                                                                                                                                                                                                                           PARTIAL SEQUENCE.
MEDLINE=83117805; PubMed=6218503;
Petersen T.E., Thorgersen H.C., Skorstengaard K., Vibe-Pedersen K., Sahl P., Sottrup-Jensens L., Magnusson S.;
"Partial primary structure of bovine plasma fibronectin: three types of internal homology.";
Proc. Natl. Acad. Sci. U.S.A. 80:137-141(1983).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Insol=P07589-1; Sequence=Displayed;
-!-TISSUE SPECIFICITY: Plasma FN (soluble dimeric form) is secreted by heparocytes. Cellular FN (dimeric or cross-linked multimeric forms), made by fibroblasts, epithelial and other cell types, is deposited as fibrils in the extracellular matrix.
-!-FM: Sulfated (By similarity).
-!-SIMILARITY: Contains 12 fibronectin type II domains.
-!-SIMILARITY: Contains 15 fibronectin type III domains.
                                                                                                                                                                                                              MEDIINE=87054047; PubMed=3780752; Skotretengaard K., Jensen M.S., Sahl P., Petersen T.E., Magnusson S.; Scomplete primary structure of bovine plasma fibronectin."; Eur. J. Biochem. 161:441-453 (1986).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE OF 2170-2265 FROM N.A.
MEDLINE-8221567; PubMed=6304699;
KORINDLIAL A.R., Vibe-Pedersen K., Baralle F.E.;
"Isolation and characterization of CDNA clones for human and bovine
                                                                                            Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Mammalia, Eutheria, Cetartiodactyla, Ruminantia, Pecora, Bovidae,
Bovinae, Bos.
(Rel. 28, Last sequence update) (Rel. 44, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       InterPro; IPR003961; FN III.
InterPro; IPR008957; FN III-like.
InterPro; IPR00562; FN Type_II.
InterPro; IPR003962; FN Type_II.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 HSSP, P08253; 1KSO.
InterPro; IPR006209; EGF_like.
InterPro; IPR000083; Fibrnctnl.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EMBL; K00800; AAA30521.2; -.
                                                                            taurus (Bovine).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PF00039; fn1;
PF00040; fn2;
                                       Fibronectin (FN).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PIR; A26452; FNBO
HSSP; P08253; 1KSC
                                                                                                                                                    NCBI_TaxID=9913;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          fibronectins.";
01-FEB-1994
05-JUL-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Name=1
                                                         Name=FN1;
                                                                                                                                                                                               SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Pfam;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Pfam;
```

(extra domain)

```
ö
                                                                                                                                                                                                                                                                                                                                                                180
                                                                                                                                                                                                                                                                                                                                                                                    240
                                                                                                                                                                                                                                                                                                                                                                                                       240
                                                                                                                                                                                                                                                                                                     EAEETCFDKYTGNTYRVGDTYERPKDSMIWDCTCIGAGRGRISCTIANRCHEGGQSYKIG 120
                                                                                                                                                                                                                                                               9
                                                                                                                                                                                                                                                                                9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STRAIN=FVB/N-3; TISSUE=Ereast tumor; MEDLINETS2880257; PubMed=12477932; DOI=10.1073/pnas.242603899; Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G., Riausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D., Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K., Hopkins R.F., Jordan H., Moorer T., Max S.I., Wang J., Hsieh F., Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L., Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E., Brownstein M.J., UsGin T.B., Toshiyuki S., Carninci P., Frange C., Raha S.S., Loquellano N.A., Peters G.J., Abrameon R.D., Mullahy S.J., Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
                                                                                                                                                                                                                                                                                                                  EPEETCFDKYTGNTYRVGDTYERPKDSMIWDCTCIGAGRGRISCTIANRCHEGGQSYKIG
                                                                                                                                                                                                                                                                                                                                                        DIWRRPHETGGYMLECVCLGNGKGEWTCKPIAEKCFDQAAGTSYVVGETWEKPYQGWMWV
                                                                                                                                                                                                                                                                                                                                                                                    DCTCLGEGSGRITCTSRNRCNDQDTRTSYRIGDTWSKKDNRGNLLQCICTGNGRGEWKCE
                                                                                                                                                                                                                                                               1 QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYGGSRGFNCESKP
                                                                                                                                                                                                                                                                          QAQQIVQPQSPLTVSQSKPGCYDNGKHYQINQQWERTYLGSALVCTCYGGSRGFNCESKP
                                                                                                                                                                                                                                                                                                                                            DIWRRPHEIGGYMLECVCLGNGKGEWICKPIAEKCFDHAAGISYVVGETWEKPYQGWMMV
                                                                                                                                                                                                                                                                                                                                                                                                      DCTCLGEGSGRITCTSRNRCNDQDTRTSYRIGDTWSKKDNRGNLLQCICTGNGRGEWKCE
                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                      Length 2265;
                                                       Interchain (with C-2256).
Interchain (with C-2246).
Sulfotyrosine (Potential).
Sulfotyrosine (Potential).
N-linked (GlCNAC. .).
O-linked (GalNAC. .).
O-linked (GalNAC. .).
                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                   C2D21D486F498D5C CRC64;
                                                                                                                                                                                                                                            9
                                                                                                                                                                                                                       Score 1447; DB 1;
Pred. No. 1.4e-116;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FINC MOUSE STANDARD; PRT; 2477 AA. P11276; Q61567; Q61568; Q61569; Q64233; Q80U14; O1-JUL-1989 (Rel. 11, Created) 29-MAR-2004 (Rel. 43, Last sequence update) 25-OCT-2004 (Rel. 45, Last annotation update) Fibronectin precursor (FN).
                                                                                                                                                                                           Phosphoserine.
                                                                                                                                                                                                                                           6; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                          RHTSVQTTSSGSGPFTDVRAAV 262
                                                                                                                                                                                                                                                                                                                                                                                                                                      MW;
                                                                                                                                                                                                                        96.5%;
                                                                                                                                                                                                                               95.48;
                                                                                                                                                                                                   249557
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE OF 1-920 FROM N.A.
                                                                                                                                                                                                                                Best Local Similarity 95.4
Matches 250; Conservative
                             2167
2200
22209
22269
22250
845
850
399
497
                                                                                                                              846
976
1213
                                                                                                                                                          1987
1943
1944
2263
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mus musculus (Mouse)
                                                                                                                                                                                                    Ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NCBI_TaxID=10090;
                                                                                                                                                          1987
1943
1944
                                                                                                                                                                                                   2265
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Name=Fn1;
                                                                                       MOD_RES
CARBOHYD
         DISULFID
DISULFID
DISULFID
                                      DISULFID
                                                          DISULFID
DISULFID
                                                                                                                                                                                                                                                                                                     61
                                                                                                                                                                                                                                                                                                                         61
                                                                                                                                                                                                                                                                                                                                            121
                                                                                                                                                                                                                                                                                                                                                               121
                                                                                                                                                                                                                                                                                                                                                                                    181
                                                                                                                                                                                                                                                                                                                                                                                                       181
                                                                                                                                                                                                                                                                                                                                                                                                                          241
                                                                                                                                                                                CARBOHYD
                                                                                                                                                                                                  SEQUENCE
                                                                                                                                                                                                                        Query Match
DISULFID
                                                                                                                                                                       CARBOHYD
                                                                                                           CARBOHYD
                                                                                                                               CARBOHYD
                                                                                                                                         CARBOHYD
                                                                                                                                                   CARBOHYD
                                                                                                                                                             CARBOHYD
                                                                              RES
                                                                                                                                                                                           RES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MOUSE
                                                                                                                                                                                           ğ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                    ð
                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                               d
                                                                                                                                                                                                                                                                                                   ò
```

```
DOWN-REGULATION BY GLUCOCORTICOIDS.

MEDLINE=21600963; PubMed=11737251;
Gu Y.-C., Taller J.F., Gullberg D., Timpl R., Ekblom M.;
Gu Y.-C., Taller J.F., Gullberg D., Timpl R., Ekblom M.;
Glucocorticoids down-regulate the extracellular matrix proteins
fibronectin, fibulin-1 and fibulin-2 in bone marrow stroma.";
Eur. J. Haematol. 67:176-184(2001).
-!- FUNCTION: Fibronectins bind cell surfaces and various compounds
including collagen, fibrin, heparin, DNA, and actin. Fibronectins
are involved in cell adhesion, cell motility, opsonization, wound
healing, and maintenance of cell shape.
-!- SUBUNI: Mostly heterodimers or multimers of alternatively spliced
variants, connected by 2 disulfide bonds near the carboxyl ends;
to a lesser extend homodimers. Interacts with FBLN1 and LGALSIBP
Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W., Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A., Fahey J., Helton E., Ketteman M., Madan A., Rodrigues S., Sanchez A., Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G., Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C., Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M., Schein J.S., Krzywinski M.I., Skalska U., Smailus D.E., Schnerch A., Schein J.E., Jones S.J.M., Marra M.A., "Generation and initial analysis of more than 15,000 full-length human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Talts J.F., Weller A., Timpl R., Ekblom M., Ekblom P.; "Regulation of mesenchymal extracellular matrix protein synthesis by transforming growth factor-beta and glucocorticoids in tumor stroma."; J. Cell Sci. 108:2153-2162
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MEDLINE=98202578; PubMed=9533887; DOI=10.1006/jmbi.1998.1616; Copie V., Tomita Y., Akiyama S.K., Acta S., Yamada K.M., Venable R.M., Pastor R.W., Krueger S., Torchia D.A.; "Solution structure and dynamics of linked cell attachment modules of mouse fibronectin containing the RGD and synergy regions: comparison with the human fibronectin crystal structure."; J. Mol. 8101. 277:663-682(1998).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Polly P., Nicholson R.C.; "Sequence of the mouse fibronectin-encoding gene promoter region.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Khandjian E.W., Salomon C., Leonard N., Tremblay S., Turler H., "Fibronectin gene expression in proliferating, quiescent, and SV40-infected mouse kidney cells.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  "extra
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MEDLINE=94131313; PubMed=8299972; DOI=10.1016/0378-1119(93)90036-3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE OF 2375-2477 FROM N.A.
MEDLINE=88124987; PubMed=3124113;
Blatti S.P., Foster D.N., Ranganthan G., Moses H.L., Getz M.J.;
Induction of fibronectin gene transcription and mRNA is a primary response to growth-factor stimulation of AKR-2B cells.";
Proc. Natl. Acad. Sci. U.S.A. 85:1119-1123(1988).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             STRUCTURE BY NMR OF 1447-1630.
MEDLINE=98202578; PubMed=9533887; DOI=10.1006/jmbi.1998.1616;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Event=Alternative splicing; Named isoforms=1;
Comment=A number of isoforms are produced. Each of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SUBCELLULAR LÓCATION: Secreted; extracellular matrix.
ALTERNATIVE PRODUCTS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gorski G., Aros M., Norton P.;
Submitted (DEC-1995) to the EMBL/GenBank/DDBJ databases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MEDLINE=93011702; PubMed=1327855;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MEDLINE=95403556; PubMed=7673336;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Exp. Cell Res. 202:464-470(1992).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE OF 2375-2477 FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE OF 899-2376 FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE OF 562-834 FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE OF 1-28 FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                    cDNA sequences.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gene 137:353-354(1993).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (By similarity)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TISSUE=Kidney;
                                                                                                                                                                                                                                                                                                                                                                                                                                    and mouse
```

(extra domain 1)

```
EAEETCFDKYTGNTYRVGDTYERPKDSMIWDCTCIGAGRGRISCTIANRCHEGGQSYKIG 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DCTCLGEGSGRITCTSRNRCNDQDTRTSYRIGDTWSKKDNRGNLLQCICTGNGRGEWKCE 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DTWRRPHETGGYMLECVCLGNGKGEWTCKPIAEKCFDHAAGTSYVVGETWEKPYQGWMMV 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      33 QAQQIVQPQSPVAVSQSKPGCFDNGKHYQINQQWERTYLGNALVCTCYGGSRGFNCESKP 92
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Fibronectin type-II 1.
Fibronectin type-III 1.
Fibronectin type-III 2.
Fibronectin type-III 3.
Fibronectin type-III 4.
Fibronectin type-III 6.
Fibronectin type-III 6.
Fibronectin type-III 7.
Fibronectin type-III 7.
Fibronectin type-III 10.
Fibronectin type-III 10.
Fibronectin type-III 11.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYGGSRGFNCESKP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus.
NCBI_TaxID=10116;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DB 1; Length 2477;
                                                                                                                                                                                                                                                                                                                                                                          Fibronectin type-III 16.
Connecting strand 3 (CS-3) (V
Fibronectin type-I 11.
Fibronectin type-I 11.
Fibronectin type-I 12.
Cell attachment site.
Cell attachment site.
By similarity.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ; Score 1419.5; DB 1; Length; Pred. No. 3.7e-114; 11; Mismatches 6; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       vi-NUV-1990 (Rel. 16, Last sequence update) 25-JAN-2005 (Rel. 46, Last annotation update) Pibronectin precursor (FN).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2477 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RHTSVQTTSSGSGPFTDVRAAV 262
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       || ::|: |:||| |||| ||
RH-ALQSASAGSGSFTDVRTAI 293
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.
STRAIN-Fischer; TISSUE-Liver;
MEDLINE-88054951; Pubmed-2445560;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      94.7%;
93.1%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local Similarity 93.19
Matches 244; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Rattus norvegicus (Rat).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              P04937; QGLDX9;
13-AUG-1987 (Rel. 05, C
01-NOV-1990 (Rel. 16, L
25-JAN-2005 (Rel. 46, L
                                                                                                                                                                                                                                                                                                                                                      1991
22081
22201
22338
2338
23381
2426
2183
2183
198
196
1130
1130
       5559

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

6077

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Name=Fn1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               241
                                                                                                                                                                                                                                                                                                                                                                                                                                                   DOMAIN
DOMAIN
DOMAIN
SITE
SITE
DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DISULFID
DISULFID
DISULFID
DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        93
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              213
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           273
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FINC RAT
                                                                                                                    DOMAIN
DOMAIN
DOMAIN
DOMAIN
                                                                                                                                                                                                                                                                                     DOMAIN
DOMAIN
DOMAIN
                                                                                                                                                                                                                                                                                                                                                      DOMAIN
DOMAIN
DOMAIN
                                                                                                                                                                                                                                       DOMAIN
DOMAIN
                                                                                                   DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FINC_RAT
         요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ਨੇ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8
                                                                                                                                                                                                                                                                                                                                                    This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the Buropean Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/
  domain" and the connecting strand 3 are present in some forms of fibronectin and absent in others;
                                                                      Isoid=P11276-1; Sequence-Displayed;
TISSUB SPECIFICITY: Plasma FN (soluble dimeric form) is secreted by hepatocyces. Cellular FN (dimeric or cross-linked multimeric forms), made by fibroblasts, epithelial and other cell types, is deposited as fibrils in the extracellular matrix.

INDUCTION: Glucocorticoids suppressed mRNA expression and protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3D-structure; Acute phase; Alternative splicing; Cell adhesion; Glycoprotein; Heparin-binding; Phosphorylation; Plasma; Repeat; Signal; Sulfation.

1 32 By similarity.
                                                                                                                                                                                                                                    -!- PTM: Sulfated (By similarity).
-!- SIMILARITY: Contains 12 fibronectin type I domains.
-!- SIMILARITY: Contains 2 fibronectin type II domains.
-!- SIMILARITY: Contains 17 fibronectin type III domains.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Fibronectin.
Fibrin- and heparin-binding
Collagen-binding.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                junction assembly; IDA. IMP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Fibronectin type-1 1.
Fibronectin type-1 2.
Fibronectin type-1 3.
Fibronectin type-1 4.
Fibronectin type-1 6.
Fibronectin type-1 6.
Fibronectin type-11 1.
Fibronectin type-11 2.
Fibronectin type-11 7.
Fibronectin type-11 7.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Cell-attachment.
Heparin-binding
Fibrin-binding 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              entities requires a license agreement (Se
or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       InterPro; 197006209; EGF like.
InterPro; 197006083; Fibracia.
InterPro; 197000083; Fibracia.
InterPro; 197000083; Fibracia.
InterPro; 197000085; FNIII subd.
InterPro; 197000857; FNIII-like.
InterPro; 197000957; FNIII-like.
Pfam; PF00040; fin2; 2.
Pfam; PF00041; fin3; 17.
ProDom; P000095; FN Type II; 2.
PROSITE; PS00022; EGF I; 2.
PROSITE; PS00023; FNIYPE II; 2.
PROSITE; PS00023; FIBRONECTIN I; 12.
PROSITE; PS00023; FIBRONECTIN I; 2.
PROSITE; PS00023; FIBRONECTIN I; 2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GO; GO:0007155; P:cell adhesion; IDA.
GO; GO:0007044; P:cell-substrate junc
GO; GO:0042060; P:wound healing; IMP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          EMBL, BC051082, AAH51082.1; --
EMBL, Z22729; CAA80422.1; --
EMBL, X82402; CAA57796.1; --
EMBL, X93167; CAA57796.1; --
EMBL, M18194; AAA37656.1; --
EMBL, S45680; AAA37656.1; --
PIR, A49173; A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           synthesis.
                                                       Name=1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DNA BIND
DOMAIN
DOMAIN
DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CHAIN
DOMAIN
DOMAIN
```

1; Gaps

```
between the Swiss Institute of Bioinformatics and the EMBL outstation - the Buropean Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (see http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  4.6.4.6.6.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Fibronectin type-1 2.
Fibronectin type-1 3.
Fibronectin type-1 3.
Fibronectin type-1 5.
Fibronectin type-1 6.
Fibronectin type-11 1.
Fibronectin type-11 7.
Fibronectin type-17 7.
Fibronectin type-1 7.
Fibronectin type-1 8.
Fibronectin type-1 9.
Fibronectin type-1 9.
Fibronectin type-11 1.
Fibronectin type-111 1.
Fibronectin type-111 1.
Fibronectin type-111 1.
Fibronectin type-111 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Fibronectin type-III 5
Fibronectin type-III 6
Fibronectin type-III 7
Fibronectin type-III 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Fibronectin type-III
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Fibronectin type-I
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Collagen-binding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Heparin-binding
Fibrin-binding 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Cell-attachment
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Fibronectin.
                                                                                                                                                           EWBL; L29191; AAA41166.1; EWBL; L00191; AAA41166.1; JOINED. EWBL; L00191; AAA41167.1; JOINED. EWBL; L29191; AAA41167.1; JOINED. EWBL; L00191; AAA41168.1; EWBL; L00191; AAA41168.1; EWBL; L00191; AAA41168.1; EWBL; MI1750; AAA41170.1; EWBL; MOS831; CAA29278.1; EWBL; MOS831; CAA29278.1; EWBL; MOS831; CAA29280.1; EWBL; MOS831; CAA29280.1; EWBL; MOS831; CAA29280.1; ...
                                                                                                                                             EMBL; X15906; CAA34020.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     273
608
11171
1630
2081
2427
91
                                                                                                                                                                                                                                                                                                                                                                                      PIR; S14428; S14428.
                                                                                                                                                                                                                                                                                                                                                                                                          HSSP; P08253; 1KSO.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1357
1811
2296
51
96
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 140
185
230
336
405
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             559
607
719
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1091
1172
1265
1356
1447
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DOMAIN
DOMAIN
DNA BIND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DOMAIN
DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CHAIN
    "" "Instruction and characterization of fibronectin-alpha 1-microglobulin complex in rat plasma.";

"Complex in rat plasma.";

"Electronection in rat plasma.";

"Electronection in cell surfaces and various compounds including collagen, fibrin, heparin, DNA, and actin. Fibronectins are involved in cell adhesion, cell motility, opsonization, wound healing, and maintenance of cell shape.

"SUBUNIT: Mostly heterodimers or multimes of alternatively spliced variants, connected by 2 disulfide bonds near the carboxyl ends, to a lesser extend homodimers. Interacts with FBLNI, AMBP and LGALSJAP (By similarity).

"SUBCELLULAR LOCATION: Secreted; extracellular matrix."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        This SWISS-PROT entry is copyright. It is produced through a collaboration
                                                                                                                                                                                                                                                                                                                                                                                                                                            Odermatt E., Tamkun J.W., Hynes R.O.;
"Repeating modular structure of the fibronectin gene: relationship to protein structure and subunit variation.";
proc. Natl. Acad. Sci. U.S.A. 82:6571-6575(1985).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Name-4; Synonyms-Landa-RLF6;

1soId=P04937-4; Sequence-VSP 003260;

1soId=P04937-4; Sequence-VSP 003260;

1soId=P04937-4; Sequence-VSP 003260;

1soId=P04937-4; Sequence-VSP 003260;

by hepatocytes. Cellular FN (dimeric or cross-linked multimeric forms), made by fibrioblasts, epithelial and other cell types, is deposited as fibrils in the extracellular matrix.

1- PTM: Sulfated (By similarity)

1- SIMILARITY: Contains 12 fibronectin type I domains.

1- SIMILARITY: Contains 2 fibronectin type II domains.

1- SIMILARITY: Contains 17 fibronectin type III domains.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE OF 1183-1192; 1385-1399 AND 2287-2300, AND INTERACTION WITH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Event=Alternative splicing; Named isoforms=4;
Comment=Each of the "extra domain" and the connecting strand 3
are present in some forms of fibronectin and absent in others;
                                                                                                                                                                                                                                                                                MEDLINE-84082067; PubMed-6317187; DOI=10.1016/0092-8674(83)90175-7; Schwarzbauer J.E., Tamkun J.W., Lemischka I.R., Hynes R.O.; Tramkun dibronectin mRNAs arise by alternative splicing within the coding region."; Cell 35:421-431(1983).
    Scwarzbauer J.E., Patel R.S., Fonda D., Hynes R.O.;
"Multiple sites of alternative splicing of the rat fibronectin gene
                                                                                                                                                             Patel R.S., Odermatt E., Schwarzbauer J.E., Hynes R.O.; "Organization of the fibronectin gene provides evidence for exon shuffling during evolution."; EMBO J. 6:2565-2572(1987).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Tamkun J.W., Schwarzbauer J.E., Hynes R.O.;
"A single rat fibronectin gene generates three different mRNAs alternative splicing of a complex exon.";
Proc. Natl. Acad. Sci. U.S.A. 81:5140-5144(1984).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE OF 2052-2237 FROM N.A., AND ALTERNATIVE SPLICING PubMed=6089177;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PubMed=7519849;
Falkenberg C., Enghild J.J., Thogersen I.B., Salvesen G.,
Akerstrom B.;
                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE OF 1722-1810 FROM N.A., AND ALTERNATIVE SPLICING
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Name=2; Synonyms-FNIII-13-less;
IsoId=P04937-2; Sequence=VSP 003258;
Name=3; Synonyms=Lambda-RLF4-5;
IsoId=P04937-3; Sequence=VSP 003259;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   IsoId=P04937-1; Sequence=Displayed;
                                                                                                   SEQUENCE OF 1-139 AND 2382-2477 FROM N.A.
STRAIN=Fischer; TISSUE=Liver;
MEDLINE=88054950; PubMed=3119323;
                                                                                                                                                                                                                                                               SEQUENCE OF 1586-2477 FROM N.A.
                                                            EMBO J. 6:25/3-2580(1987).
                                                                                                                                                                                                                                                                                                                                                                                                                             PubMed=3863113;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Name=1
```

```
Fibronectin type-III 10.
Fibronectin type-III 11.
Fibronectin type-III 12.
Fibronectin type-III 13 (extra domain 2).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (extra domain 1)
DR InterPro; IPR006209; EGF like.

DR InterPro; IPR003962; FINII subd.

InterPro; IPR003962; FINII subd.

DR InterPro; IPR003962; FINII subd.

DR InterPro; IPR003962; FINII subd.

InterPro; IPR004962; FW III-like.

DR Ffam; PF00039; fn1; 12.

DR Pfam; PF00041; fn3; 17.

DR PRINTS; PR00013; FWTYPEII.

DR PRINTS; PR00013; FWTYPEII.

DR PRINTS; PR000395; FW TYPE II; 2.

PROSITE; PS00022; EGF 1; 2.

PROSITE; PS00023; FIBROMECTIN 1; 12.

PROSITE; PS00023; FIBROMECTIN 2; 2.

PROSITE; PS00023; FIBROMECTIN 3; 7.

PROSITE; PS00023; 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Fibrin- and heparin-binding 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               897
994
1083
1171
1171
1355
1446
1536
1720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1537
1631
1721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DOMAIN
DOMAIN
DOMAIN
```

```
Carrained Formula T., Arakawa T., Bono H., Carninci P., Adachi J., Aizawa K., Akimura T., Arakawa T., Bono H., Carninci P., Pukuda S., Furuno M., Hanaqaki T., Hara A., Hashizume W., Hanyatau W., Harandoto K., Haraoka T., Hirozane T., Hayatau K., Ishii Y., Itoh M., Kagawa I., Hirozane T., Atoch H., Kawai J., Kojima Y., Konno H., Konno H., Konno M., Koya S., Kurihara C., Matsuyama T., Miyazaki A., Murata M., Nakamura M., Koya S., Nishi K., Nomura K., Numzaki R., Ohno M., Ohsato N., Okazaki Y., Saito R., Saitoh H., Sakai C., Sakai K., Sakaime N., Sano H., Agawa A., Takahashi P., Takauka A., Shiraki T., Sogabe Y., Tagami M., Tomaru A., Toya T., Yakauka A., Shiraki T., Sogabe Y., Tanka T., Tomaru A., Toya T., Yakauka A., Muramatsu M., Hayashizaki Y.; Submitted (JUL-2001) to the EMBL/GenBank/DDBJ databases.

H. HSSP, O96KF7, IFBR.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.
STRAIN-C57BL/6J; TISSUE=Ovary;
STRAIN-C57BL/6J; TISSUE=Ovary;
MEDLINE=20530913; Pubbed=11076861; DOI=10.1101/gr.152600;
A MEDLINE=20530913; Pubbed=11076861; DOI=10.1101/gr.152600;
A Konno H., Akiyama J., Nishi K., Kitsunai T., Tashiro H., Itoh M., A Konno H., Akiyama J., Nishi K., Kitsunai T., Tashiro H., Itoh M., A Mamancto R., Matsumnoto H., Sakaguchi S., Ikegami T., Kashiwagi K., Fujiwake S., Inoue K., Togawa Y., Izawa M., Ohara E., Watshiki M., Yoneda Y., Ishikawa T., Ozawa K., Tanaka T., Matsuura S., Kawai J., Yoneda Y., Ishikawa T., Ozawa K., Tanaka T., Matsuura S., Kawai J., Yoneda Y., Ishikawa T., Ozawa K., Tanaka T., Matsuura S., Kawai J., Yoneda Y., Ishikawa T., Rozawa K., Tanaka T., Hayashizaki Y.;
MIKEN integrated sequence analysis (RISA) system-384-format sequencing pipeline with 384 multicapillary sequencer.";
                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.
STRANIE-STREL/GAJ: TISSUE=Ovary;
The FANTOM Consortium.
The RIKEN Genome Exploration Research Group Phase I & II Team;
the RIKEN Genome Exploration Research Group Phase I & II Team;
"Analysis of the mouse transcriptome based on functional annotation of 60,770 full-length cDNAs.";
Nature 420:563-573(2002).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A.
STRAIN=C57BL/G1 TISGUE=Ovary;
STRAIN=20499374; PubMed=11042159; DOI=10.1101/gr.145100;
REDLINE=20499374; PubMed=11042159; DOI=10.1101/gr.145100;
Carninci P., Shibata Y., Hayatsu N., Sugahara Y., Shibata K., Itoh M., Konno H., Okazaki Y., Muramatsu M., Hayashizaki Y.;
Konno H., Okazaki Y., Muramatsu M., Hayashizaki Y.;
Whormalization and subtraction of cap-trapper-selected cDNAs to prepare full-length cDNA libraries for rapid discovery of new genes.";
Genome Res. 10:1617-1630(2000).
                                                                                                                                     SEQUENCE FROM N.A.
STRAIN=C57BL/6J; TISSUE=Cvary;
MEDLINE=99279253; PubMed=10349636; DOI=10.1016/S0076-6879(99)03004-9;
Carninci P., Hayashizaki Y.;
"High-efficiency full-length cDNA cloning.";
Meth. Enzymol. 303:19-44(1999).
  length enriched library, clone:E330027I09 product:fibronectin 1, full
                                         Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
Mammalia; Butharia; Rodentia; Sciurognathi; Muridae; Murinae; Murinae; McBI_TaxID=10090;
                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A.
STRAIN-C57BL/6J; TISSUE-Ovary;
MEDLINE-21085660; PubMed=11217851; DOI=10.1038/35055500;
RIKEN FANTOM CONSOrtium;
"Functional annotation of a full-length mouse cDNA collection.";
Nature 409:685-690(2001).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  IEA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GO; GO:00055/6; C:extracellular;
InterPro; IPR006209; EGF like.
InterPro; IPR000083; Fibrnctnl.
Pfam; PP00039; fnl, 5.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Pfam; PF00039; fn1; 5.
PRINTS; PR00012; FNTYPEI
                      insert sequence.
Mus musculus (Mouse)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.
      ï
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  272
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          92
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       EAEETCFDKYTGNTYRVGDTYERPKDSMIWDCTCIGAGRGRISCTIANRCHEGGQSYKIG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DTWRRPHETGGYMLECVCLGNGKGEWTCKPIAEKCFDHAAGTSYVVGETWEKPYQGWMMV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DKWRRPHETGGYMLECLCLGNGKGEWTCKPIAEKCPDHAAGTSYVVGETWEKPYQCWMMV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DCTCLGEGSGRITCTSRNRCNDQDTRTSYRIGDTWSKKDNRGNLLQCICTGNGRGEWKCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYGGSRGFNCESKP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                             (V region)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mus musculus 2 days pregnant adult female ovary cDNA, RIKEN full-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ; Score 1412.5; DB 1; Length 2477;
; Pred. No. 1.5e-113;
10; Mismatches 8; Indels 1;
Fibronectin type-III 14.
Fibronectin type-III 15.
Fibronectin type-III 16.
Connecting strand 3 (CS-3) (V
Fibronectin type-III 17.
Fibronectin type-II 10.
Fibronectin type-I 10.
Fibronectin type-I 11.
Fibronectin type-I 11.
Fibronectin type-I 11.
Fibronectin type-I 12.
Cell attachment site.
By similarity.

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Interchain (with C-2462).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         QBCGJ7 PRELIMINARY; PRT; 296 AA.
QBCGJ7;
QBCGJ7;
01-MAR-2003 (TrEMBLrel. 23, Created)
01-MAR-2003 (TrEMBLrel. 23, Last sequence update)
01-MAR-2004 (TrEMBLrel. 26, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RHTSVQTTSSGSGPFTDVRAAV 262
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                || :|: |:||| ||||| ||
RHV-LQSASAGSGSFTDVRTAI 293
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    94.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local Similarity 92.7<sup>1</sup>
Matches 243; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2325
2335
2368
2378
2409
2423
2458
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  461
498
508
545
555
                                                                                                22294
2339
2383
2383
1614
2181
                                                                                                                                                                                                                                    DISULFID
DISULFID
DISULFID
                                                                                                                                                                                                                                                                                              DISULFID
DISULFID
DISULFID
DISULFID
                                                                                                                                                                                               DISULFID
DISULFID
                                                                                                                                                                                                                                                                                                                                                                            DISULFID
DISULFID
DISULFID
DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                          DISULFID
DISULFID
DISULFID
DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     н
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          33
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      93
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  213
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               273
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DISULFID
                                                                                                  DOMAIN
                                                                                                                                          DOMAIN
                                           DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 13
Q8C6J7
                                                                                                                                                                               SITE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DE DI DE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
    원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
```

```
346
406
469
517
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1722
1814
1904
1993
2083
                                                                            P08253;
                                                                                                                                                                                                                                                        DOMAIN
DOMAIN
DNA BIND
DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DOMAIN
DOMAIN
DOMAIN
SITE
                                                                                                                                                                                                                                                                                          DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DOMAIN
                                                                                                                                                                                                                                         SIGNAL
                                                                                                                                                                                                                                                                                                           DOMAIN
                                                                                                                                                                                                                                                                                                                    DOMAIN
                                                                                                                                                                                                                                                                                                                                    DOMAIN
                                                                                                                                                                                                                                                                                                                                                    DOMAIN
                                                                                                                                                                                                                                                                                                                                                              DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                              DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DOMAIN
                                                                                                                                                                                                                                                 CHAIN
 5
                                                                                                                                                                                              272
                                                                           9
                                                                                           92
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ALTERNATIVE PRODUCTS:

BVent=Alternative splicing; Named isoforms=1;
Comment=A number of isoforms are produced. Each of the "extra domain" and the connecting strand 3 are present in some forms of fibronectin and absent in others;
                                                                                                                                                                                                                                                                                                                                                                                           QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQMERTYLGNVLVCTCYGGSRGFNCESKP
                                                                                   EAEETCFDKYTGNTYRVGDTYERPKDSMIWDCTCIGAGRGRISCTIANRCHEGGQSYKIG
                                                                                                                                                                                       DCTCLGEGNGRITCTSRNRCNDQDTRTSYRIGDTWSKKDNRGNLLQCVCTGNGRGEWKCE
                                                                                                                                            DTWRRPHETGGYMLECVCLGNGKGEWTCKP1AEKCFDHAAGTSYVVGETWEKPYQGWMMV
                                                                                                                                                                              DCTCLGEGSGRITCTSRNRCNDQDTRTSYRIGDTWSKKDNRGNLLQCICTGNGRGEWKCE
                                                          3; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Isold-091740-1; Sequence-Displayed;
IISOUS SPECIFICITY: In early Xenopus embryo, cellular forms of fibronectin predominate which include both extra domains. In fibronectin of embryonic and adult liver the connecting strand can be either completely excluded or included.
SIMILARITY: Contains 12 fibronectin type I domains.
SIMILARITY: Contains 2 fibronectin type II domains.
SIMILARITY: Contains 17 fibronectin type III domains.
                                                                                                                                                                                                                                                                                                                                           Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Amphibia, Batrachia, Anura, Mesobatrachia, Pipoidea, Pipidae,
Xenopodinae, Xenopus,
                                          DB 2; Length 296;
                                        Query Match 92.2%; Score 1382.5; DB 2; Length Best Local Similarity 92.0%; Pred. No. 7e-112; Matches 240; Conservative 10; Mismatches 8; Indels
       PROSITE; PS00022; EGF 1; UNKNOWN 1.
PROSITE; PS01253; FIBRONECTIN 1; 5.
SEQUENCE 296 AA; 32617 MW; A0FF5F4809FB6439 CRC64;
                                                                                                                                                                                                                                                                                       01-NOV-1997 (Rel. 35, Created)
01-NOV-1997 (Rel. 35, Last sequence update)
05-UUL-2004 (Rel. 44, Last annotation update)
                                                                                                                                                                                                                                                                          PRT; 2481 AA.
                                                                                                                                                                                                                                                                                                                                   Xenopus laevis (African clawed frog).
                                                                                                                                                                                                               RHTSVQTTSSGS -- GPFTDVR 259
                                                                                                                                                                                                                         || ::{: |:|
RH-ALQSASAGEALGPGTAPR 292
                                                                                                                                                                                                                                                                          STANDARD;
SMART; SM00058; FN1; 5.
                                                                                                                                                                                                                                                                                                                   Fibronectin precursor.
                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                    NCBI_TaxID=8355;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         similarity)
                                                                                                                                                                                                                                                                         XENLA
                                                                                                                                                                                                                                                                                                                            Name=FN1;
                                                                                                           61
                                                                                                                            93
                                                                                                                                             121
                                                                                                                                                              153
                                                                                                                                                                              181
                                                                                                                                                                                              213
                                                                                                                                                                                                               241
                                                                                                                                                                                                                                                        RESULT 14
FINC XENLA
                                                                                                                                                                                                                                                                         FINC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ++
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ---
                                                                                                                                                                                                                                                                          셤
                                                                                                          ò
                                                                                                                         g
                                                                                                                                            ð
                                                                                                                                                            원
                                                                                                                                                                             ઠે
                                                                                                                                                                                             d
                                                                                                                                                                                                               ð
```

```
cr file SWISS-FRONT entry is copyright. It is produced through a collaboration of the Burds and the Burds in Collaboration between the Swiss Institute of Bioinformatics and the Burd outlettin on way modified and this statement is not employed as its content is in no way modified and this statement is not employed uses by mon-profit limitation of the content is not employed uses the content is in no way modified and this statement is not employed uses by mon-profit limitation.

Burding of content is not employed by the content is in no way modified and this statement is not employed uses by mon-profit limitation. The content is not employed by the content is not employed by
```

```
MEDLINE-2388257; PubMed=12477932; DOI=10.1073/pnas.242603899;

A Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,

A Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,

A Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,

A Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,

A Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,

A Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,

A Brownstein M.S., Usdin T.B., Penaldo M.F., Casavant T.L., Scheetz T.E.,

B Brownstein M.S., Woldin T.B., Peters G.J., Abramson R.D., Mullahy S.J.,

Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,

Raha S.S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,

Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,

Rahes S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,

Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,

Rahes J., Helton E., Ketteman M., Madan A., Rodrigues S., Sanchez A.,

Rhiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,

Ray Adriguez A.C., Grimwood J., Schmutz J., Myers R.M., Butterfield Y.S.,

Rrzywinski M.I., Skalska U., Smailus D.E., Schnerch A., Schein J.E.,

A Jones S.J., Marra M.A.;

Reprec. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      EAEETCFDKYTGNTYRVGDTYERPKDSMIWDCTCIGAGRGRISCTIANRCHEGGQSYKIG 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  94
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYGGSRGFNCESKP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Klein S.L., Strausberg R.L., Wagner L., Pontius J., Clifton S.W., Richardson P.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                "Genetic and genomic tools for Xenopus research: The NIH Xenopus initiative.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ..
7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 2481;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Klein S., Strausberg R.;
Submitted (JUN-2004) to the EMBL/GenBank/DDBJ databases.
REMBL, BC072841, AAH72841.1, -.
REMBL, BC072841, AAH72841.1, -.
RINterPro, IPR006209; EGF_like.
RINterPro; IPR00083; Fibrnctni.
RINterPro; IPR000957; FN_III.
RINterPro; IPR000957; FN_III.
RINterPro; IPR000562; FN_III.
RINterPro; IPR000562; FN_III.
REMPRO; IPR000562; FN_III.
REMPRO; IPR00040; FN_III.
REMPRO; IPR00040; FN_III.
REMPRO; IPR00040; FN_III.
REMPRO; IPR00041; FN_III.
REMPRO; IPR00041; FN_III.
REMPRO; IPR00041; FN_III.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MEDLINE=22341132; PubMed=12454917; DOI=10.1002/dvdy.10174;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      20; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      86.5%; Score 1296; DB 2;
83.2%; Pred. No. 1.9e-103;
iive 22; Mismatches 20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRINTS; PROO13; FNTYPEII.
PROD0m; PD000955; FNI Type_II; 2.
SMART; SM00058; FNI; 12.
SMART; SM00059; FNI; 2.
SMART; SM00060; FNI; 2.
SMART; SP00060; FNI; 17.
PROSITE; PS00022; EGE_I; UNKNOWN_2.
PROSITE; PS01253; FIBRONECTIN_1; 11.
PROSITE; PS00023; FIBRONECTIN_2; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Dyn. 225:384-391(2002)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Local Similarity 83.2%
es 218; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                IISSUE=Embryo;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              "ISSUE=Embryo;
                             FROM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    95
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Matches
      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        214
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        61 EABETCFDKYTGNTYRVGDTYERPKDSMIWDCTCIGAGRGRISCTIANRCHEGGQSYKIG 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DTWRRPHETGGYMLECVCLGNGKGEWTCKPIAEKCFDHAAGTSYVVGETWEKPYQGWMMV 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            94
By similarity.
By sim
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DCTCLGEGNGRITCSSKNRCNDQDTKTSYRIGDTWSKTDTRGNLLQCICTGNGRGEWKCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYGGSRGFNCESKP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DCTCLGEGSGRITCTSRNRCNDQDTRTSYRIGDTWSKKDNRGNLLQCICTGNGRGEWKCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Xenopus laevis (African clawed frog).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Amphibia; Batrachia; Anura; Mesobatrachia; Pipoidea; Pipidae;
Xenopodinae; Xenopus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GGCNAC. .) (Potential).
GGCNAC. .) (Potential).
GGLNAC. .) (Potential).
GGLCNAC. .) (Potential).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 2481;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MW; 7E47DF4F6CE72C93 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Last sequence update)
Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          86.5%; Score 1296; DB 1;
83.2%; Pred. No. 1.9e-103;
ive 22; Mismatches 20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRT; 2481 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       N-linked
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                N-linked
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    QGQQA5;
05-JUL-2004 (TrEMBLrel. 27, Created)
05-JUL-2004 (TrEMBLrel. 27, Last seq
05-JUL-2004 (TrEMBLrel. 27, Last and
Fibronectin protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RHTSVQTTSSGSGPFTDVRAAV 262
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   275 RHSSAQATGTGSNPITNIQTAL 296
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   272678
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Local Similarity 83.2
hes 218; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                              2330
2340
2373
2383
2414
2428
2458
2459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            431
                                                                                                                                                                                                                                                                  509
546
556
590
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Name=fibronectin;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NCBI_TaxID=8355;
                                                                                                                                                                                                                                                                                                                                                                                                     2328
2346
2371
2390
2412
2459
2463
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               215
    DISULPID
DISULPID
DISULPID
DISULPID
DISULPID
                                                                                                           DISULFID
DISULFID
DISULFID
DISULFID
DISULFID
                                                                                                                                                                                                                       DISULPID
DISULPID
DISULPID
DISULPID
DISULPID
DISULPID
                                                                                                                                                                                                                                                                                                                                                         DISULFID
DISULFID
DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                       DISULFID
DISULFID
DISULFID
DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          155
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 06GQA5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Best Loca
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 15
```

g ò 셤 ò 셤 8 g ð 셤

```
        Qy
        121 DTWRRPHETGGYMLECVCLGNGKGEWTCKPIAEKCFDHAAGTSYVVGETWEKPYQGWMWV 180

        Db
        155 DTWRRPHETGGYMLECVCLGNGKGEWTCKPVAERCYDNTAGTSYVVGQTWEKPYQGWMWV 214

        Qy
        181 DCTCLGEGGGRITCTSRNRCNDQDTRTSYRIGDTWSKKDNRGNLLQCICTGNGRGEWKCE 240

        Db
        215 DCTCLGEGNGRITCSRNRCNDQDTRTSYRIGDTWSKTDTRGNLLQCICTGNGRGEWKCE 274

        Qy
        241 RHTSVQTTSSGRGPFTDVRAAV 262

        Db
        275 RHSSAQATGTGSNPITNIQTAL 296

        Search completed: September 30, 2005, 13:37:55

        Job time: 191.55 secs
```

Human Human Human

Human pro
Human NOV
Human NOV
Human cel
Human myo
Human pol
Human pol
Human fib
Fibronect
Fibronect
Fibronect
Fibronect
Human fib

```
Proteins with cell migration stimulatory activity used in treating wound
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              The invention provides a human migration stimulatory factor (MSF) protein. Host cells containing a replicable vector comprising the MSF encoding nucleic acid can be used for the recombinant production of the protein. The polypeptide can be used for modulating cell migration, healing a wound and for preventing scarring. The present sequence represents the human fibronectin
                                    Aboo1289 Human Adoo1289 Human Adm3864 Human Add39412 Human Adm38646 Human EAbr5835 NM 002 Adv58175 Protein Add26085 Fibrone Add2668 Human EAG315 Human EAG315 Frotein Add2668 Human Add39415 Human MAdr67315 Human MAdr67315 Human Adr67315 Human Adr67315 Human MAdr67315 Human MAMR67315 Human MAMR677315 Human MAMR6777315 Human MAMR6777315 Human MAMR6777315 Human MAMR6777315 Human MAMR677773 HUMAN MAMR6777315 HUMAN MAMR67
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Migration stimulatory factor; MSF; cell migration; modulation; human; wound healing; scarring; MSF1-alpha; epitope; fibronectin.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYGGSRGFNCESKP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match 100.0%; Score 1499; DB 2; Length 720; Best Local Similarity 100.0%; Pred. No. 1.9e-109; Matches 262; Conservative 0; Mismatches 0; Indels 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ALIGNMENTS
               ADR66120
ABO01289
ABM35550
AAM38647
ABR40124
ABR40139412
AAM38649
AAM38646
ADP65196
ADC89560
ADC89560
ADC92160
ADC92660
ADC92660
ADC936415
ADC93661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAY28914 standard; protein; 720 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Disclosure; Fig 2, 86pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Fibronectin protein sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       98WO-GB003766
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                97GB-00026539
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               21-SEP-1999 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   and preventing scarring
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Schor AM;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WPI; 1999-430039/36.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (UYDU-) UNIV DUNDEE
Sequence 720 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                16-DEC-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WO9931233-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    15-DEC-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         24-JUN-1999.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Schor SL,
AAY28914;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAY28914
ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Human leu
BCU0770 p
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Human fib
Human fib
Human pro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Protein d
Human fib
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Human cer
Fibronect
Human fib
Human pro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Fibrinoge
Human fib
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              myo
bla
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                min
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Human myo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Amino aci
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Aay28914 Fibronect
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Fibronect
                                                                                                                                             2005, 13:30:51; Search time 108.675 Seconds (without alignments) 932.422 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Amino
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Human
Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Нишап
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Human
                                                                                                                                                                                                                                                                              ....TSVQTTSSGSGPFTDVRAAV 262
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2105692
                    5.1.6
Compugen Ltd
                                                                                                                                                                                                                                                                                                                                                                                                                                Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                         2105692 seqs, 386760381 residues
                    version :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SUMMARIES
                                                                                                                                                                                                                                   US-09-492-971B-15_COPY_4_265
1499
                                                                                                                                                                                                                                                                              QAQQMVQPQSPVAVSQSKPG.....
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                          sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAG68182
ABU07486
ABR41106
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ABR92078
ADB70378
ADB98726
ADE82522
ADU37157
AAW63171
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ADP75952
ADP75957
ABR58303
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ADQ39409
AAY28901
ADQ39406
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAR92778
AAU74674
AAE23651
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ADR97658
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAW99595
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ADQ39403
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ADR67316
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ADS17489
                                                                                                                                                                                                                                                                                                                                              Gapop 10.0 , Gapext 0.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             genescq11990s:*
genescq12000s:*
genescq12001s:*
genescq12001s:*
genescq12003s:*
genescq12003bs:*
genescq12004s:*
                    GenCore
Copyright (c) 1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Geneseq_16Dec04:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        geneseqp1980s:*
                                                                                                      OM protein - protein search, using
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                length: 0
length: 2000000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  80
                                                                                                                                               September 30,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               642
642
                                                                                                                                                                                                                                                                                                                            BLOSUM62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
10000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ......
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                sed
                                                                                                                                                                                                                                                            Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Minimum DB
Maximum DB
                                                                                                                                                                                                                                                                                   Sequence:
                                                                                                                                                                                                                                                                                                                                                                                           Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Database
                                                                                                                                                 Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Result
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ģ
```

ö

Gaps

```
Disulfide-bond
                           Disulfide-bond
                                                             Disulfide-bond
                                                                          Disulfide-bond
                                                                                                                                                           01-AUG-1994;
                                                                                                                   WO9604304-A1
                                                                                                                                              01-AUG-1995;
                                                                                                                                 15-FEB-1996
                                                                                                                                                                                                                                                                                                                                                                                                            61
                                                                                                                                                                                                                                                                                                                                                                                                                         61
                                                                                                                                                                                                                                                                                                                                                                                                                                                   121
                                                                                                                                                                                                                                                                                                                                                                                                                                       121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            241
                                                                                                                                                                                                                                                                                                                                                       Query Match
                                          Domain
                                                                                         Domain
  ઠ
                                                                                                                                                                                                                                                                                                                                                                                             엄
                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                        289
                            Fibrin-binding peptide; fibronectin; fibrinolysis; fibrinogenesis; thrombus; pulmonary embolus; atherosclerosis; tumour; diagnosis; therapy.
50 QAQQMYQPQSPVAVSQSKPGCYDNGKHYQINQQMERTYLGNVLVCTCYGGSRGFNCESKP
                                                          170 DTWRRPHETGGYMLBCVCLGNGKGEWTCKPIAEKCFDHAAGTSYVVGETWEKPYQGWMVV
                                                                                 DCTCLGEGSGRITCTSRNRCNDQDTRISYRIGDTWSKKDNRGNLLQCICTGNGRGEWKCE
                                                                         DCTCLGEGSGRITCTSRNRCNDQDTRTSYRIGDTWSKKDNRGNLLQCICTGNGRGEWKCE
                                               DTWRRPHETGGYMLECVCLGNGKGEWTCKPIAEKCFDHAAGTSYVVGETWEKPYQGWMVV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2123. .2230
/labbl = Fibrin binding domain
/note= "11 kDa Ĉ-terminal fibrin-binding domain"
2141. .2185
                                                                                                                                                                                                                                                                                                                                                                                                                  "Cys439-Cys467 disulfide bond"
                                                                                                                                                                                                                                                                                                                                                                                                                                "Cys465-Cys477 disulfide
                                                                                                                                                                                                                                                                                  /note= "type 1 module 8"
530. .569
/label = 9F1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  'label = 9F1
'note= "type 1 module 9"
                                                                                                                                                                                                                                                                             "type 1 module 1"
                                                                                                                                                                                                                                                                                                                    note= "type 1 module 3"
                                                                                                                                                                                                                                                                                                                                          note= "type 1 module 4"
                                                                                                                                                                                                                                                                                                                                                              2
                                                                                                                                                                                                                                                                                                                                                                                                      note= "type 1 module 7"
                                                                                                                                                                                                                                                                                                                                                            /note= "type 1 module 5'
277. .312
/label = 6F1
/note= "type 1 module 6'
                                                                                                     241 RHTSVQTTSSGSGPFTDVRAAV 262
                                                                                                             290 RHTSVQTTSSGSGPFTDVRAAV 311
                                                                                                                                                    AAR92778 standard; protein; 2324 AA
                                                                                                                                                                                                                                                         cocation/Qualifiers
                                                                                                                                                                                                                                                                                                                                  = 4F1
                                                                                                                                                                                                                                                                                                                                                                                                7F1
                                                                                                                                                                                                                                                                                                                                                                                                                                              8F1
                                                                                                                                                                                                                                                                                                                                               000. .244
label = 5F1
                                                                                                                                                                                                                                                                 21. .65
/label = 1F1
                                                                                                                                                                                                                                                                                                              label = 3F1
                                                                                                                                                                                                                                                                                                                           155. .199
/label = 4
                                                                                                                                                                               (revised)
(first entry)
                                                                                                                                                                                                                                                                                                                                                                                        439. .486
/label = 7
                                                                                                                                                                                                                                                                                                                                                                                                            439. .467
/note= "Cy
                                                                                                                                                                                                                                                                                                                                                                                                                                      487. .529
/label = 8
                                                                                                                                                                                                                                                                                                        .154
                                                                                                                                                                                                                                                                                                                                                                                                                         477
                                                                                                                                                                                                                                                                              note=
                                                                                                                                                                                                                                                                                                                                                                                                                                 note=
                                                                                                                                                                                                   Human fibronectin.
                                                                                                                                                                                                                                                                                                                                                                                                            Disulfide-bond
                                                                                                                                                                                                                                                                                                                                                                                                                         Disulfide-bond
                                                                                                                                                                                                                                     Homo sapiens
Unidentified
                                                                                                                                                                               21-OCT-2004
21-JUN-1996
                                                                          181
                                                                                                                                                                  AAR92778;
                    61
                                               121
                                                                                                                                                                                                                                                         Key
Domain
                                                                                                                                                                                                                                                                                     Domain
                                                                                                                                                                                                                                                                                                         Domain
                                                                                                                                                                                                                                                                                                                            Domain
                                                                                                                                                                                                                                                                                                                                                Domain
                                                                                                                                                                                                                                                                                                                                                                    Domain
                                                                                                                                                                                                                                                                                                                                                                                         Domain
                                                                                                                                                                                                                                                                                                                                                                                                                                       Domain
                                                                                                                                                                                                                                                                                                                                                                                                                                                            Domain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Domain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Domain
                                                                                                                                              AAR92778
                                                                                      d
                                                                                                    ò
                                                                                                                d
                                                                                                                                                     셤
                    ò
                                셤
                                           ò
                                                         g
                                                                         ò
```

```
EAEETCFDKYTGNTYRVGDTYERPKDSMIWDCTCIGAGRGRISCTIANRCHEGGQSYKIG 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EAEETCFDKYTGNTYRVGDTYERPKDSMIWDCTCIGAGRGRISCTIANRCHEGGGSYKIG 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DTWRRPHETGGYMLECVCLGNGKGEWTCKPIAEKCFDHAAGTSYVVGETWEKPYQGWMMV 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DCTCLGEGSGRITCTSRNRCNDQDTRTSYRIGDTWSKKDNRGNLLQCICTGNGRGEWKCE 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Human fibronectin (AAR92778) has a fibrin-binding site, close to the C-terminus (amino acids 2123-2232 or 2141-2230), covering the 10F1.11F1 module pair of the protein. Fibrin-binding sites can be prepd. by enzymatic cleavage of fibronectin, peptide synthesis or by recombinant DNA techniques. They are used to detect a fibrin-binding target site, to treat disorders involving abnormal fibrinolysis or fibrinogenesis, to disrupt blood clots and to aid delivery of medicaments to fibrin- contg. sites. They show high affinity to and slow dissociation from fibrin, and provide fast diffusion and rapid clearance
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         thrombi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Revised record issued on 21-OCT-2004 : Correction to Feature Table Key
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYGGSRGFNCESKP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYGGSRGFNCESKP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DIWRRPHETGGYMLECVCLGNGKGEWTCKPIAEKCFDHAAGTSYVVGETWEKPYQGWMVV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    New fibrin-binding peptide molecules - used for the diagnosis and treatment of conditions associated with fibrin deposition, e.g. t)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              100.0%; Score 1499; DB 2; Length 2324; 100.0%; Pred. No. 6.8e-109; ive 0; Mismatches 0; Indels 0;
                                                                                                                                 2171. .2183
/note= "Cys2171-Cys2183 disulfide bond"
2187. .2230
/label = 11F1
/note= "type 1 module 11"
2189. .2216
                                                                                                                                                                                                                                                                                                                                                                                      'note= "Cys2214-Cys2226 disulfide bond"
                                                                                                   'note= "Cys2144-Cys2173 disulfide bond"
                                                                                                                                                                                                                                                                                                                          'note= "Cys2189-Cys2216 disulfide
label = 10F1
/note= "type 1 module 10"
2144. .2173
                                                                                                                                                                                                                                                                                                                                                                                                                             2233. .2271
/label = 12F1
/note= "type 1 module 12"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Claim 2; Page 104-110; 146pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RHTSVQTTSSGSGPFTDVRAAV 262
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      95WO-US009819
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     94US-00283857
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (UYNY ) UNIV NEW YORK STATE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Best Local Similarity 100.
Matches 262; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gold LI, Rostagno AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1996-129333/13.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 2324 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         N-PSDB; AAT17551
```

셤

```
The present invention relates to a method for enhancing proliferation or inducing apoptosis of erythroid progenitor cells (EPCs). The method involves culturing haematopolatic cellular populations containing EPCs in the presence of a polypeptide having an integrin very late antigen (VLA) induced, genetic or congenital erythroid disorders. Methods of the invention are useful in diagnostic assays of progenitor cells, e.g. cells occurring in pathologic states such as anaemia or polycythaemia and in the study of erythroid cell development. They are used in the screening of agents which inhibit or prevent appprosis of erythroid cells. The present sequence is a human protein related to the modulation of proliferation of EPCs. This sequence is used in the invention
DCTCLGBGSGRITCTSRNRCNDQDTRTSYRIGDTWSKKDNRGNLLQCICTGNGRGEWKCE 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Modulating proliferation of erythroid progenitor cells in a hematopoietic cellular population by culturing with polypeptides containing an integrin very late antigen 5 or 4 binding site, useful in treating erythroid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        EABETCFDKYTGNTYRVGDTYERPKDSMIWDCTCIGAGRGRISCTIANRCHEGGGSYKIG 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           EAEETCFDKYTGNTYRVGDTYERPKDSMIWDCTCIGAGRGRISCTIANRCHEGGQSYKIG 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      121 DTWRRPHETGGYMLECVCLGNGKGEWTCKPIAEKCFDHAAGTSYVVGETWEKPYQGWMWV 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQMERTYLGNVLVCTCYGGSRGFNCESKP 60
                                                                                                                                                                                                                                                                                                                                                                                                                                     integrin very late antigen; haematopoietic cell; induced disorder; genetic disorder; congenital erythroid disorder; polycythaemia; anaemia.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYGGSRGFNCESKP
                                                                                                                                                                                                                                                                                                                                                                                                                Human; proliferation; apoptosis; erythroid progenitor cell; EPC; VLA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 2324;
                                                                                                                                                                                                                                                                                                                                                                     Human protein related to modulation of proliferation of BPCs.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        100.0%; Score 1499; DB 5;
100.0%; Pred. No. 6.8e-109;
ive 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ï
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Zhang
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (ADRE-) ADVANCED RES & TECHNOLOGY INST.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Disclosure; Page 55-64; 66pp; English.
                                                                                                                                                                                                                                  Ź
                                                                                                    241 RHTSVQTTSSGSGPFTDVRAAV 262
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ď
                                                                                                                                                                                                                             AAE23651 standard; protein; 2324
                                                                         RHTSVQTTSSGSGPFTDVRAAV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Cooper
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                12-MAY-2000; 2000WO-US012961.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             12-MAY-2000; 2000WO-US012961.
                                                                                                                                                                                                                                                                                                                        (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity 100.
Matches 262, Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Kapur R,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WPI; 2002-121963/16.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 2324 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WO200187037-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Williams DA,
                                                                                                                                                                                                                                                                                                                        10-SEP-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     22-NOV-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     disorders.
                                                                                                                                                                                                                                                                             AAE23651;
                                                                         241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           61
                              181
                                                                                                                                                                                                            AAE2365
                                                                                                                                                                                       RESULT
                              셤
                                                                       ò
                                                                                                             ద
                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         The invention relates to obtaining a population of quiescent haematopoietic cells (HC), comprising culturing HC while adhering the cells to a polypeptide having a very late antigen-4 (VLA-4) binding site, in particular fibronectin polypeptide, so as to expand the number of HC, where the adhering provides an increased percentage of quiescent HC. Also included are inducing apoptosis of a subpopulation of HC, by contacting the cells with a polypeptide having a VLA-4 binding site under conditions to cause apoptosis of a subpopulation of HC and a medium for culturing HC which enriches quiescent HC, comprising a fibronectin polypeptide. The method is useful for obtaining a cell population containing quiescent haematopoietic cells which are useful for treating a subject. Use of the VLA-4 containing peptide is useful for inducing apoptosis of a subpopulation of CD34+ HC oppulation. The present sequence is human fibronectin which contains then VLA-4 binding site used in the method of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             61 EAEFTCFDKYTGNTYRVGDTYERPKDSMIWDCTCIGAGRGRISCTIANRCHEGGGSYKIG 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Obtaining hematopoietic cell population containing quiescent cells for use in treating a subject, by expanding the cells while adhered to a polypeptide containing binding sites for integrins on the cells.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYGGSRGFNCESKP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     EAEETCFDKYTGNTYRVGDTYERPKDSMIWDCTCIGAGRGRISCTIANRCHEGGQSYKIG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DTWRR PHETGGYML ECVCLGNGKGEWTCKPI AEKCFDHAAGTSYVVGETWEKPYOGWMMV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DTWRRPHETGGYMLECVCLGNGKGEWTCKPIAEKCFDHAAGTSYVVGETWEKPYQGWMVV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        181 DCTCLGEGSGRITCTSRNRCNDQDTRTSYRIGDTWSKKDNRGNLLQCICTGNGRGEWKCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYGGSRGFNCESKP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 2324;
                                                                                                                                                                                                                                                                                                     antigen-4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                                                             Human; fibronectin; VLA-4 binding site; very late an
quiescent haematopoietic cell; HC; apoptosis; CD34+.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              100.0%; Score 1499; DB 5;
100.0%; Pred. No. 6.8e-109;
ive 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Yoder MC;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (ADRE-) ADVANCED RES & TECHNOLOGY INST.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Disclosure; Page 51-61; 63pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  <u>م</u>
                                                                                                             AAU74674 standard; protein; 2324 AA.
    RHTSVQTTSSGSGPFTDVRAAV 262
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Dutt
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          12-MAY-2000; 2000WO-US012993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        12-MAY-2000; 2000WO-US012993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GB,
                                                                                                                                                                                                          (first entry)
                                                                                                                                                                                                                                                Human fibronectin protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Bradford
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WPI; 2002-082932/11.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local Similarity
Matches 262; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 2324 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                WO200187071-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             the invention
                                                                                                                                                                                                                                                                                                                                                                     Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Williams DA,
                                                                                                                                                                                                        09-APR-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                             22-NOV-2001
                                                                                                                                                          AAU74674;
    241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             н
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           121
                                                                     RESULT
```

ö

셤

ઠે 쉽 g

ò

ठे

```
The invention describes genes (I) which are differentially regulated in prostate cancer. (I) Is useful for diagnosing a prostate cancer in a sample comprising prostate tissue, which involves determining the number of target genes which are differentially-regulated in the sample, where the number is indicative of the probability that the sample comprises prostate cancer. (I) Is useful for assessing a therapeutic or preventive in expression levels in a sample comprising prostate tissue of target genes which are differentially-regulated in prostate cancer. (I) is also useful for identifying agents that modulate a biological activity of a polypeptide differentially-regulated in prostate cancer. (I) is also useful for identifying agents that modulate a biological activity of a polypeptide differentially-regulated in prostate cancer cells, which involves contacting a polypeptide differentially-regulated for cells, which involves contacting a polypeptide differentially regulated concer cells, which a test agent modulates the biological activity of the polypeptide, and determining whether the test agent modulates the biological activity. (I) is useful as molecular markers, as drug targets, and for detecting, proventing or treating, determining to prostate cancer. (I) and its expression conducts are used in the diagnostic test to assay for presence of cancer conducts are used in the diagnostic test to assay for presence of cancer conducts are used in the diagnostic test to assay for presence of cancer conducts are used in the diagnostic test to assay for presence of cancer conducts are used in the diagnostic test to assay for presence of cancer conducts are used in the diagnostic test to assay for presence of cancer conducts are used in the diagnostic test to assay for presence of cancer conducts are used in the diagnostic test to assay for presence of cancer conducts are used in the diagnostic test to assay for presence of cancer conducts are used in the diagnostic test energy.
DCTCLGEGSGRITCTSRNRCNDQDTRTSYRIGDTWSKKDNRGNLLQCICTGNGRGEWKCE 244
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Novel genes which are differentially regulated in prostate cancer, usef for diagnosing prostate cancer in prostate tissue sample and assessing therapeutic or preventive intervention in prostate cancer patients.
                                                                                                                                                                                                                                                                                                                                                                                                                                                           molecular marker, drug target, cancer detection, cancer diagnosis, cancer staging, cancer grading, cancer assessing, cancer monitoring.
                                                                                                                                                                                                                                                                                                                                                                                                                                          Prostate cancer; gene expression; differential regulation;
                                                                                                                                                                                                                                                                                                                                                                                                     Protein differentially regulated in prostate cancer #89.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Claim 1; Page 378-386; 416pp; English.
                                                                                                                                                               ABU07486 standard; protein; 2328 AA
                                                                                                                                          RHTSVQTTSSGSGPFTDVRAAV 262
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (ORIG-) ORIGENE TECHNOLOGIES INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    06-APR-2001; 2001US-0281731P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               08-APR-2002; 2002WO-US010824
                                                                                                                                                                                                                                                                                                                                                             28-JAN-2003 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WPI; 2003-058520/05.
N-PSDB; ABX10391.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WO200281638-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Jay G;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       17-0CT-2002,
                                                                                                                                                                                                                                                                                                                      ABU07486;
                      125
                                                                                                                                        241
                                                                                                                                                                                245
                                                                                                 185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sun Z,
                                                                                                                                                                                                                                                                                                                        음
                                                            à
                                                                                                 요
                                                                                                                                        ò
                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       mass (HBM) gene, which are found on chromosome 11q13.3. The ZmaxI and HBM genes have osteopathic activities. The genes can be used in gene therapy, antisense therapy and in the production of vaccines. They can be used in the diagnosis and treatment of bone disorders including osteoporosis, the diagnosis and treatment of bone disorders including osteoporosis, agget's disease, sclerostosis, osteomalacia and fibrous dysplasia.

ABA82038 to ABA82700 and AAG68158 to AAG68193 represent sequences used in the exemplification of the present invention
                                                                                                                                                                                                                                                                                                                                                                                                                                        Human; high bone mass; HBM gene; Zmaxl gene; chromosome 11; 11q13.3; sequence tagged site; STS; osteoporosis; osteopathic; gene therapy; antisense therapy; vaccine; bone disorder; Paget's disease; sclerostosis; osteomalacia; fibrous dysplasia.
EAEETCFDKYTGNTYRVGDTYERPKDSMIWDCTCIGAGRGRISCTIANRCHEGGQSYKIG 124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       EAEETCFDKYTGNTYRVGDTYERPKDSMIWDCTCIGAGRGRISCTIANRCHEGGQSYKIG 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               64
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        The present invention describes the human Zmax1 gene and the high bone
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYGGSRGFNCESKP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DCTCLGEGSGRITCTSRNRCNDQDTRTSYRIGDTWSKKDNRGNLLQCICTGNGRGEWKCE
                                                            DCTCLGEGSGRITCTSRNRCNDQDTRTSYRIGDTWSKKDNRGNLLQCICTGNGRGEWKCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 2328;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     New high bone mass (HBM) and Zmaxl genes and proteins useful modulating bone mass for the treatment of \varepsilon.g.\ osteoporosis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           100.0%; Score 1499; DB 4; 100.0%; Pred. No. 6.8e-109;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Johnson ML;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Claim 76; Page 408-413; 443pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Recker RR,
                                                                                                                                        241 RHISVQTISSGSGPFIDVRAAV 262
                                                                                                                                                                                                                                                                                 AAG68182 standard; protein; 2328 AA
                                                                                                                                                                                                                                                                                                                                                                                                     Fibronectin protein SEQ ID NO:98
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (GENO-) GENOME THERAPEUTICS CORP.
                                                                                                                                                                 241 RHTSVQTTSSGSGPFTDVRAAV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2000US-00543771.
2000US-00544398.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 21-JUN-2000; 2000WO-US016951.
                                                                                                                                                                                                                                                                                                                                                             (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   262; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Little RD,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WPI; 2001-657171/75.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 2328 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WO200177327-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       05-APR-2000;
05-APR-2000;
                                                                                                                                                                                                                                                                                                                                                             25-JAN-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Carulli JP,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        18-OCT-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         61
                                                                                                   181
                    121
                                                            181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Best Local
Matches 26
                                                                                                                                                                                                                                                              AAG681
                                                                                                                                                                                                                                                                                                      a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                    셤
                                                         ð
                                                                                                 셤
                                                                                                                                        ઠે
                                                                                                                                                                           임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
```

121 DTWRRPHETGGYMLECVCLGNGKGEWTCKPIAEKCFDHAAGTSYVVGETWEKPYQGWMMV 180

ò

```
ö
of cancer, its stage of development, the nature of genetic defect, etc. The polypeptide encoded by (1) can be used as target for therapy or drug discovery. (1) can also be used for expressing the polypeptide and thus for searching specific binding partners of the polypeptide. (1) is useful in therapeutic applications to treat prostate cancer. The identification of specific genes, and groups of genes, expressed in pathways physiologically relevant to prostate cancer permits the definition of functional and disease pathways and the delineation of targets in these pathways which are useful in diagnostic, therapeutic, and clinical applications. This is the amino acid sequence of a protein differentially
                                                                                                                                                                                                                                                                                                                                                                            120
                                                                                                                                                                                                                                                                                                                                                                                                           124
                                                                                                                                                                                                                                                                                                                                                                                                                                            180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             184
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                244
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Human; high bone mass; HBM; LRP5; LRP6; transgenic; bone mass modulation; gene therapy; bone density modulation; bone strength; trabecular number; bone size; bone tissue connectivity; bone disease; osteoporosis; osteomalacia; rickets; Paget's disease; neoplasm of the bone.
                                                                                                                                                                                                                                                                                                                                         64
                                                                                                                                                                                                                                                                                                                                QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYGGSRGFNCESKP
                                                                                                                                                                                                                                                                                                                                                                            EAEETCFDKYTGNTYRVGDTYERPKDSM1WDCTC1GAGRGR1SCT1ANRCHEGGQSYK1G
                                                                                                                                                                                                                                                                                                                                                                                                 EAEETCFDKYTGNTYRVGDTYERPKDSMIWDCTCIGAGRGRISCTIANRCHEGGQSYKIG
                                                                                                                                                                                                                                                                                                                                                                                                                                           DIWRRPHETGGYMLECVCLGNGKGEWTCKPIAEKCFDHAAGTSYVVGETWEKPYQGWMMV
                                                                                                                                                                                                                                                                                                                                                                                                                                                               DIWRRPHETGGYMLECVCLGNGKGEWTCKPIAEKCFDHAAGTSYVVGETWEKPYQGWMVV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DCTCLGEGSGRITCTSRNRCNDQDTRTSYRIGDTWSKKDNRGNLLQCICTGNGRGEWKCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DCTCLGEGSGRITCTSRNRCNDQDTRTSYRIGDTWSKKDNRGNLLQCICTGNGRGEWKCE
                                                                                                                                                                                                                                                                                                        1 QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYGGSRGFNCESKP
                                                                                                                                                                                                                                                                       ..
0
                                                                                                                                                                                                                                      Length 2328;
                                                                                                                                                                                                                                                                        Indels
                                                                                                                                                                                                                                      100.0%; Score 1499; DB 6;
100.0%; Pred. No. 6.8e-109;
iive 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Bodine PV;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Human fibronectin gene FN protein product
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ABR41106 standard; protein; 2328 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RHISVQTISSGSGPFIDVRAAV 262
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (GENO-) GENOME THERAPEUTICS CORP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Yaworsky PJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      11-MAY-2001; 2001US-0290071P.
17-MAY-2001; 2001US-029131P.
PEB-2002; 2002US-0353058P.
04-MAR-2002; 2002US-0351293P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       13-MAY-2002; 2002WO-US014876.
                                                                                                                                                                       regulated in prostate cancer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (first entry)
                                                                                                                                                                                                                                                                        Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WPI; 2003-129278/12.
                                                                                                                                                                                                                                      Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Bex FJ,
                                                                                                                                                                                                      Sequence 2328 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WO200292764-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AMHP ) WYETH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   02-JUN-2003
                                                                                                                                                                                                                                                                     Matches 262;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       21-NOV-2002
                                                                                                                                                                                                                                                                                                                                                                            61
                                                                                                                                                                                                                                                                                                                                                                                                                                            121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              245
                                                                                                                                                                                                                                                                                                                                                                                                           65
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Babij P,
   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
```

```
The invention relates to novel transgenic animals expressing the high bone mass (HBW) gene, expressing the corresponding wild type HBM gene, comprising an alteration of the gene encoding LMPS or expressing an LMPS that is modulated by an altered gene control sequence introduced an LMPS that is modulated by an altered gene control sequence introduced can impose the study of bone density modulation. The transgenic animals are for the study of bone mass modulation. The cinvention may have a use in gene therapy. The transgenic animals and nucleic acids are for the study of bone density modulation, where the concentration may have a use in gene therapy. The transgenic animals and nucleic acids are for the study of bone density, modulation, where the concentration may have a use an appearance of the same concentration may have a use as a secret of concentration may have a use as a secret of concentration may have a use as a secret from bone density, bone strength, trabecular number, bone size, or bone tissue connectivity. The transgenic animals, nucleic acids and methods are useful for identifying molecules involved in bone development, and for developing pharmaccutical compositions, which may be employed for treating or preventing bone diseases, e.g. osteoporosis, osteomalacia, rickets, Paget's disease, or neoplasms of the bone. The transgenic animals and nucleic acids are also useful in methods for disquesce involved in bone development, cor characterised by reduced bone density or mass. The present sequence is used in the exemplification of the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              BAEETCFDKYTGWTYRVGDTYERPKDSMIWDCTCIGAGRGRISCTIANRCHEGGQSYKIG 124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DCTCLGEGSGRITCTSRNRCNDQDTRTSYRIGDTWSKKDNRGNLLQCICTGNGRGEWKCE 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   244
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         64
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DCTCLGEGSGRITCTSRNRCNDQDTRTSYRIGDTWSKKDNRGNLLQCICTGNGRGEWKCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYGGSRGFNCESKP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      EAEETCFDKYTGNTYRVGDTYERPKDSMIWDCTCIGAGRGRISCTIANRCHEGGQSYKIG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DTWRRPHETGGYMLECVCLGNGKGEWTCKP1AEKCFDHAAGTSYVVGETWEKPYQGWMMV
new transgenic animals (e.g. mice), useful as models for studying bondensity modulation, developing drugs for treating or preventing bone diseases (e.g. osteoporosis), or diagnosing diseases characterized by reduced bone density.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYGGSRGFNCESKP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      cancer; cervical cancer marker; cancer therapy;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 2328;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ID NO: 64
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             100.0%; Score 1499; DB 6;
100.0%; Pred. No. 6.8e-109;
ive 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Human cervical cancer cell marker protein SEQ
                                                                                                                            Disclosure; Page 532-538; 603pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ABR92078 standard; protein; 2328 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RHTSVQTTSSGSGPFTDVRAAV 262
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RHTSVQTTSSGSGPFTDVRAAV 266
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            therapy; vaccine.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Similarity 100.
Matches 262; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 2328 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Human; cervical detection; gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WO2002101075-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    10-SEP-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ABR92078;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ហ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                65
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          245
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ABR92078
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT
  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          윤
```

```
The present invention describes a method (M1) for diagnosing the presence of cancer cells or non-cancer cells in a tissue sample, or determining the presence of cancer cells or outcome of a cancer patient. M1 involves providing a set of genes that are differentially expressed in cancerous or non-cancerous conditions, determining the expression levels of the set of genes and calculating a ratio of the expression levels of the differentially expressed genes. M1 is useful for diagnosing the presence of cancer cells or non-cancer cells in a tissue sample, where the cancer is malignant pleural mesothelioma (MPM), lung adenocarcinoma, squamous carcinoma, prostate cancer, breast cancer, diffuse large B-cell lymphoma, follicular lymphoma and ovarian cancer, diffuse large B-cell lymphoma, follicular lymphoma and ovarian cancer, diffuse large B-cell prognosis or outcome of a cancer patient. The ratio of expression levels of differentially expressed genes is used as an indicator of cancer type, cancer class, and/or cancer prognosis, all of which are useful for determining a course of treatment of a patient. The present sequence represents a human protein which is used in an example from the present
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Diagnosing cancer cells in tissue sample, or determining prognosis or outcome of cancer patient, by calculating ratio of expression levels of genes that are differentially expressed in cancer and non cancer tissues.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             QAQQMYQPQSPVAVSQSKPGCYDNGKHYQINQQMERTYLGNVLVCTCYGGSRGFNCESKP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   EAEETCFDKYTGNTYRVGDTYERPKDSMIWDCTCIGAGRGRISCTIANRCHEGGQSYKIG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   EAERTCFDKYTGNTYRVGDTYERPKDSMIWDCTCIGAGRGRISCTIANRCHEGGQSYKIG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DTWRRPHETGGYMLECVCLGNGKGEWTCKPIAEKCFDHAAGTSYVVGETWEKPYQGWMMV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DIWRRPHETGGYMLECVCLGNGKGEWTCKPIAEKCFDHAAGTSYVVGETWEKPYQGWMWV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYGGSRGFNCESKP
                                               cancer; malignant pleural mesothelioma; MPM; lung adenocarcinoma; squamous carcinoma; medulloblastoma; prostate cancer; breast cancer; diffuse large B-cell lymphoma; follicular lymphoma; ovarian cancer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 2328;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       100.0%; Score 1499; DB 7;
100.0%; Pred. No. 6.8e-109;
cive 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ж
;;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Bueno
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Claim 77; Page 369-376; 396pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                       (BGHM ) BRIGHAM & WOMENS HOSPITAL INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gullans SR,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RHTSVQTTSSGSGPFTDVRAAV 262
                                                                                                                                                                                                                                                                                                                                                            05-SEP-2001; 2001US-0317389P. 30-AUG-2002; 2002US-00236031.
                                                                                                                                                                                                                                                                                                             05-SEP-2002; 2002WO-US028203
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative
  Fibronectin SEQ ID NO:70.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Jensen RV,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WPI; 2003-290233/28.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           N-PSDB; ADB70377.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 2328 AA;
                                                                                                                                                                                                                     WO2003021229-A2.
                                                                                                                                                                     Homo sapiens.
                                                                                                                                                                                                                                                                    13-MAR-2003.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gordon GJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         262;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     65
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
                                                                                                                          human.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Matches
  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ACF12828 to ACF12947 encode the human cervical cancer marker proteins (I) given in ABR92047 to ABR92164. A higher level of expression of (I) than normal indicates the presence of cervical cancer. Also described: (1) a vector (II) containing (I); (2) a host cell (III) containing (I); (3) a sassessing (M1) whether a patient is afflicted with cervical cancer, comprising comparing the level of expression of a marker in a patient's sample, and the normal level of expression of the marker in a control norcervical cancer sample, where a significant increase in the level of expression of the marker in the patient's sample is an indication that the patient is afflicted with control sample is an indication that the patient is afflicted with therapy and in vaccines. (I) has cytostatic activity, and can be used in gene therapy and in vaccines. (I) is useful in detecting, characterising, preventing and treating human cervical cancers. (I) may also be used in various prognostic and diagnostic assays, pharmacogenomics and in
                                                                                                                                                                                                                                                                                                                                                                                   New isolated nucleic acid molecule useful for detecting, characterizing, preventing and treating human cervical cancers, in various prognostic and diagnostic assays, in pharmacogenomics and in monitoring clinical trials.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               65 EAEETCFDKYTGNTYRVGDTYERPKDSMIWDCTCIGAGRGRISCTIANRCHEGGGSYKIG 124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             244
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    64
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         5 QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYGGSRGFNCESKP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DCTCLGEGSGRITCTSRNRCNDQDTRTSYRIGDTWSKKDNRGNLLQCICTGNGRGEAKCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   EAEETCFDKYTGNTYRVGDTYER PKDSMIWDCTCIGAGRGRISCTIANRCHEGGQSYKIG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYGGSRGFNCESKP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DTWRRPHETGGYMLECVCLGNGKGEWTCKPIAEKCFDHAAGTSYVVGETWEKPYQGWMWV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 2328;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                           Kamatkar S;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match 100.0%; Score 1499; DB 6; Best Local Similarity 100.0%; Pred. No. 6.8e-109; Matches 262; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                           Monahan JE,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Claim 4; Page 212-217; 386pp; English
                                                                                                                                                                                                                                         Chen Y, Zhao X, Monah
1, Glatt K, Hoersch S;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ADB70378 standard; protein; 2328 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RHTSVQTTSSGSGPFTDVRAAV 262
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RHTSVQTTSSGSGPFTDVRAAV
                                                                                            13-JUN-2001; 2001US-0298155P.
13-JUN-2001; 2001US-0298159P.
14-NOV-2001; 2001US-0335936P.
                                             12-JUN-2002; 2002WO-US018638
                                                                                                                                                                                         (MILL-) MILLENNIUM PHARM INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          monitoring clinical trials
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (first entry)
                                                                                                                                                                                                                                                                                                               2003-156967/15.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 2328 AA;
                                                                                                                                                                                                                                                                                                                                        N-PSDB; ACF12859
                                                                                                                                                                                                                                                                  Gannavarapu M,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               04-DEC-2003
19-DEC-2002
                                                                                                                                                                                                                                         Schlegel R,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ADB70378;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                121
```

ö

Gaps

0

120

64

180 184

RESULT 9 ADB70378

UXXXXEX

원

ò

ò 셤 8 В ð

셤

ઠે

셤

```
The present invention relates to regulating LRP5, LRP6 or HBM activity in a subject comprising administering a composition which modulates a Dkk activity. The method is useful for modulating lipid levels and/or bone mass and is useful in treating or diagnosing abnormal lipid levels and bone mass disorders, such as osteoporosis, bond fracture, age-related loss of bone, a chondrodystrophy, drug-induced bone disorder, high bone steomalacia, osteomyalitis, Paget's disease, osteoarchritis, and rickers. Modulators of Dkk activity are useful for as reagents in studying bone mass and lipid level modulation, in modulating whit signaling, or treating Dkk-mediated disorders. The present sequence represents a human protein sequence related to the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Regulating LRP5, LRP6 or HBM activity in a subject, useful for modulating lipid levels and/or bone mass, and for in treating bone mass disorders, e.g. osteoporosis, comprises administering a composition which modulates
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EAEFTCFDKYTGNTYRVGDTYERPKDSMIWDCTCIGAGRGRISCTIANRCHEGGQSYKIG 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          65 EAEETCFDKYTGNTYRVGDTYERPKDSMIWDCTCIGAGRGRISCTIANRCHEGGQSYKIG 124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYGGSRGFNCESKP
                                                                                                                                                                                                                                                                                                                           LRPS; LRPG; HBM; Dkk activity; Osteopathic; Antiinflammatory; Antiarthritic; bone mass disorders; osteoporosis; hypercalcaemia; hyperostosis; osteogenesis; Wnt signaling.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            100.0%; Score 1499; DB 7; Length 2328; 100.0%; Pred. No. 6.8e-109; ive 0; Mismatches 0; Indels 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Damagnez V, Robinson JA;
                                                                                                                                                                                                                                                                                        Human protein sequence related to the invention #12.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Disclosure; SEQ ID NO 98; 173pp; English.
                                         245 RHTSVQTTSSGSGPFTDVRAAV 266
                                                                                                                                                                 Ź
                                                                                                                                                             ADE82522 standard; protein; 2328
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (GENO-) GENOME THERAPEUTICS CORP. (AMHP ) WYETH.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Bhat BM,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      17-MAY-2001; 2001US-0291311P.
01-FEB-2002; 2002US-0353058P.
04-MAR-2002; 2002US-0361293P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               17-MAY-2002; 2002WO-US015982
                                                                                                                                                                                                                                                (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Matches 262; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Anisowicz A,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WPI; 2003-129219/12.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 2328 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g. osteoporos.
Dkk activity.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                WO200292015-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                       Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          21-NOV-2002.
                                                                                                                                                                                                                                                29-JAN-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Allen K,
Yaworsky 1
                     241
                                                                                                                                                                                                         ADE82522;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                      g
                     ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               The present invention relates to High Bone Mass (HBM), LRPS (Zmax1) and LRP6 mutants, which results in a HBM-like phenotype when expressed in a cell. The HBM-like phenotype results in bone mass modulation and/or lipid level modulation. The invention is useful for diagnosing a HBM-like phenotype in a subject and for preparing a composition for modulating bone mass and/or lipid levels in a subject suffering from e.g. osteoporosis. The present sequence was used to illustrate the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           EAEETCFDKYTGWTYRVGDTYERPKDSMIWDCTCIGAGRGRISCTIANRCHEGGGSYKIG 124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DIWRRPHETGGYMLECVCLGNGKGEWTCKPIAEKCFDHAAGTSYVVGETWEKPYQGWMMV 184
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                244
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  09
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         64
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYGGSRGFNCESKP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     EAEETCFDKYTGNTYRVGDTYERPKDSMIWDCTCIGAGRGRISCTIANRCHEGGQSYKIG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DTWRRPHETGGYMLECVCLGNGKGEWTCKPIAEKCFDHAAGTSYVVGETWEKPYQGWMWV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DCTCLGEGSGRITCTSRNRCNDQDTRTSYRIGDTWSKKDNRGNLLQCICTGNGRGEWKCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DCTCLGEGSGRITCTSRNRCNDQDTRTSYRIGDTWSKKDNRGNLLQCICTGNGRGEWKCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                New nucleic acid comprising a mutation in LRP5 or LRP6, useful for diagnosing a HBM-like phenotype in a subject and for preparing a composition for modulating bone mass and/or lipid levels in a subject suffering from e.g. osteoporosis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYGGSRGFNCESKP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Liu W;
                                                                                                                                                                                                                                                                      Bone Mass; HBM; LRPS; Zmax1; LRP6;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 2328;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Yaworsky PJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            100.0%; Score 1499; DB 7;
100.0%; Pred. No. 6.8e-109;
iive 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Morales A,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Disclosure; SEQ ID NO 677; 629pp; English.
                                                                                                  ADB98726 standard; protein; 2328 AA.
245 RHTSVQTTSSGSGPFTDVRAAV 266
                                                                                                                                                                                                                                                                                          bone mass modulation; osteoporosis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Graham JR,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (GENO-) GENOME THERAPEUTICS CORP.
                                                                                                                                                                                                                                                                      therapy; High
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        11-MAY-2001; 2001US-0290071F.
17-MAY-2001; 2001US-029131F.
01-FEB-2002; 2002US-0353058F.
04-MAR-2002; 2002US-0361293F.
                                                                                                                                                                                                                                                                                                                                                                                                                                                              13-MAY-2002; 2002WO-US014877.
                                                                                                                                                                                   (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity 100.
Matches 262; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Anisowicz A,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WPI; 2003-129214/12.
                                                                                                                                                                                                                             Human fibronectin.
                                                                                                                                                                                                                                                                        Gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 2328 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           P-PSDB; ADB98703
                                                                                                                                                                                                                                                                                                                                                                             WO200292000-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (AMHP ) WYETH.
                                                                                                                                                                                                                                                                                                                                      Homo sapiens.
                                                                                                                                                                                                                                                                      Osteopathic;
                                                                                                                                                                                   04-DEC-2003
                                                                                                                                                                                                                                                                                                                                                                                                                       21-NOV-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              65
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Allen K,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               125
```

ö

ö

유

ð

g. ò a ð

ሯ

Length 2328;

100.08;

```
RESULT 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAW6317:
                                                     8
                                                                                      셤
                                                                                                                           ò
                                                                                                                                                            셤
                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                          ð
                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                     à
                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  The invention relates to a method of diagnosing the presence of cancer cells or non-cancer cells in a tissue sample, determining prognosis or cells or non-cancer cells in a tissue sample, determining prognosis or cutcome of a cancer patient, selecting a course of treatment for a subject having or suspected of having malignant pleural mesothelioma (MPM) and evaluating treatment of MPM comprising determining the ratio of the expression level of a set of genes differentially expressed in a cancer tissue. The cancer is chosen from MPM, lung adenocarcinoma, cancer tissue. The cancer is chosen from MPM, lung adenocarcinoma, squamous carcinoma, medulloblastoma, prostate cancer, breast cancer, diffuse large B-cell lymphoma, follicular lymphoma and ovarian cancer. The method is useful for diagnosing MPM in a subject suspected of being cancerous from a subject and determining the expression of nucleic acid markers or its expression products in the tissue sample. This sequence represents a human MPM protein of the invention. Note: The sequence data for this patent did not form part of the printed specification but was obtained in electronic format directly from USPTO at sequence.html.
                                                                                                           244
                                                                                                                                                                                                                                                                                                                                                                                                                          Human; malignant pleural mesothelioma; MPM; tumour; lung adenocarcinoma;
squamous carcinoma; medulloblastoma; prostate cancer; breast cancer;
diffuse large B-cell lymphoma; follicular lymphoma; ovarian cancer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Diagnosing the presence of cancer or non-cancer cells in tissue sample, useful for diagnosing malignant pleural mesothelioma comprises determining ratio of expression level of a set of genes expressed in
                   125 DTWRRPHETGGYMLECVCLGNGKGEWTCKPIAEKCFDHAAGTSYVVGETWEKPYQGWMMV
                                                                                              DCTCLGEGSGRITCTSRNRCNDQDTRTSYRIGDTWSKKDNRGNLLQCICTGNGRGEWKCE
DTWRRPHETGGYMLECVCLGNGKGEWTCKPIAEKCFDHAAGTSYVVGETWEKPYQGWMWV
                                                                       DCTCLGEGSGRITCTSRNRCNDQDTRTSYRIGDTWSKKDNRGNLLQCICTGNGRGEWKCE
                                                                                                                                                                                                                                                                                                                                                                                        Human malignant pleural mesothelioma (MPM) protein #31.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gullans SR, Bueno R;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (BGHM ) BRIGHAM & WOMENS HOSPITAL INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Claim 77; SEQ ID NO 70; 53pp; English.
                                                                                                                                                241 RHTSVQTTSSGSGPFTDVRAAV 262
                                                                                                                                                                                                                                                                             ADJ37157 standard; protein; 2328 AA
                                                                                                                                                                   245 RHTSVQTTSSGSGPFTDVRAAV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       05-SEP-2001; 2001US-0317389P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     05-SEP-2002; 2002US-00236031
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gordon GJ, Jensen RV,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2004-141744/14.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          N-PSDB; ADJ37156.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US2003219760-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     cancer tissues.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                       22-APR-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                27-NOV-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      cytostatic.
                                                                                                                                                                                                                                                                                                                  ADJ37157;
121
                                                                       181
                                                                                                                                                                                                                                         RESULT 12
                                                                                                                                                                                                                                                            ADJ37157
                                                                                                                                                                                                                                                                                               셤
ઠે
                                유
                                                                       ઠ
                                                                                                        g
                                                                                                                                            8
```

Seguence 2328 AA;

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          This is the amino acid sequence of fibronectin. The tryptase-6 complex inhibitory peptides of the invention comprise the sequence of a fragment of the fibronectin (residues 1351-1356). Sequences shown in AMM63160 to AAM63169 represent mouse mast cell protease (mMCP-6) inhibitory peptides. These peptides which are tryptase-6 complex inhibitors, can be used for treating a mast cell-mediated inflammatory disorder. The inhibitors can be used to treat inflammatory disorders including asthma, allergic rhinitis, urticaria and antioedema, eczematous dermatitis (atopic dermatitis), anaphylaxis, hyperproliferative skin disease, peptic ulcers, inflammatory bowel disorder, hyperresponsiveness and inflammatory skin conditions
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Tryptase-6 complex inhibitory peptides - used to treat mast cell-mediated inflammatory disorders e.g. asthma.
                                                                                                                              120
                                                                                                                                                184
                                                                                                                                                                                                                                                         DCTCLGEGSGRITCTSRNRCNDQDTRTSYRIGDTWSKKDNRCNLLQCICTGNGRGEWKCE 240
                                                                                                                                                                                                                                                                                          244
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Mast cell protease; MCP; mouse; inhibitor; peptide substrate; asthma; tryptase-6 protein; inflammatory disorder; allergic rhinitis; urticaria; anticedema; eczematous dermatitis; atopic dermatitis; anaphylaxis; hyperproliferative skin disease; peptic ulcer; hyperresponsiveness; inflammatory skin condition; fibronectin.
                                                                  09
                                                                                              64
                                                                                                                                                                                                                                                                             EAEETCFDKYTGNTYRVGDTYERPKDSMIWDCTCIGAGRGRISCTIANRCHEGGQSYKIG
                                                                                                                                                                                             DTWRRPHETGGYMLECVCLGNGKGEWTCKP1AEKCFDHAAGTSYVVGETWEKPYQGWMMV
                                                                                                                                                                                                               QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYGGSRGFNCESKP
                                                                                                QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYGGSRGFNCESKP
                                  Gaps
                                  .
0
                                 Indels
 Score 1499; DB 8;
Pred. No. 6.8e-109;
; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Disclosure; Page 36-42; 69pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                        AAW63171 standard; peptide; 2386 AA
                                                                                                                                                                                                                                                                                                                        RHTSVQTTSSGSGPFTDVRAAV 262
                                                                                                                                                                                                                                                                                                                                            Amino acid sequence of fibronectin.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (BGHM ) BRIGHAM & WOMENS HOSPITAL.
      100.0%; Fix
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               98WO-US001865
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             97US-0037090P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (first entry)
Query Match
Best Local Similarity 100.
Matches 262; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ΰ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WPI; 1998-437390/37.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Huang
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             05-FEB-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WO9833812-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               30-JAN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     27-0CT-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             06-AUG-1998.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Stevens RL,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAW63171;
                                                                  Н
                                                                                                'n
                                                                                                                                                             65
                                                                                                                                                                                             121
                                                                                                                                                                                                                           125
                                                                                                                                                                                                                                                           181
                                                                                                                                                                                                                                                                                          185
                                                                                                                                                                                                                                                                                                                          241
                                                                                                                                                                                                                                                                                                                                                        245
                                                                                                                                61
```

a

ò

셤

g

ð

a à

ð

```
ö
                            Hybrid proteins have a tissue-binding domain (TBD) from 1 protein linked to a crosslinking domain from another protein. The TBD comprises: aa 2-926, 928-1338 and especially 2-1336 of the sequence given in AAR6019; the heparin-binding domain (aa 1812-1710 of AAR60021) of fibronectin; the collagen-binding domain (aa 282-608 of AAR60021) of fibronectin; or the cell-binding domain (aa 1357-1903 or 1532- 1631 of AAR60020) of fibronectin in AQ70007, and sequences for fibronectin and fibrinogen hybrid is given in AAQ70007, and sequences for fibronectin and fibrinogen-alpha in AAQ70008 and AAQ70009, respectively. (Updated on 25-MAR-2003 to correct PN field.)
                                                                                                                                                                                                                                                                                                                                                                                                                                     DTWRRPHETGGYMLECVCLGNGKGEWTCKPIAEKCFDHAAGTSYVVGSTWEKPYQGWMWV 180
                                                                                                                                                                                                                                                                                                                                                                    EAEETCFDKYTGNTYRVGDTYERPKDSMIWDCTCIGAGRGRISCTIANRCHEGGOSYKIG 120
                                                                                                                                                                                                                                                                                                                                                                                                     151
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      211
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DCTCLGEGSGRITCTSRNRCNDQDTRTSYRIGDTWSKKDNRGNLLQCICTGNGRGEWKCE 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Human, fibronectin, glycoprotein, extracellular matrix, motif; migration, stimulation, wound healing, periodontal tissue regeneration; metastasis; tumour; invasion; angiogenesis; inflammation; connective tissue function.
                                                                                                                                                                                                                                                                                                 1 QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQMERTYLGNVLVCTCYGGSRGFNCESKP 60
                                                                                                                                                                                                                                                                                                                                      91
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          peptides which modulate cell migration have the motif IGD - and are
                                                                                                                                                                                                                                                                                                                                                                                           EAEETCFDKYTGNTYRVGDTYERPKDSMIWDCTCIGAGRGRISCTIANRCHEGGQSYKIG
                                                                                                                                                                                                                                                                                                                                                                                                                                                             DIWRRPHEIGGYMLECVCLGNGKGEWTCKPIAEKCFDHAAGTSYVVGETWEKPYQGWMVV
                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                ,
0
                                                                                                                                                                                                                                  Length 2446;
                                                                                                                                                                                                                                                                   0; Indels
                                                                                                                                                                                                                                  100.0%; Score 1499; DB 2;
100.0%; Pred. No. 7.2e-109;
iive 0; Mismatches 0;
Disclosure; Page 37-48; 87pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            262
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ą
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAW99595 standard; peptide; 2477
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               useful to stimulate angiogenesis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Disclosure; Fig 5; 57pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RHTSVQTTSSGSGPFTDVRAAV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         98WO-GB001939
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          97GB-00014276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (first entry)
                                                                                                                                                                                                                                                                   Matches 262; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (UYDU-) UNIV DUNDEE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WPI; 1999-120875/10
                                                                                                                                                                                                                                                  Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Human fibronectin.
                                                                                                                                                                                                    Sequence 2446 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WO9902674-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         01-JUL-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          08-JUL-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   22-JUN-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       21-JAN-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           212
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            272
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Schor SL;
                                                                                                                                                                                                                                                                                                                                                                       61
                                                                                                                                                                                                                                                                                                                                                                                                         92
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          152
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAW99595;
                                                                                                                                                                                                                                                                                                                                                                                                                                        121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              241
                                                                                                                                                                                                                                    Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAW99595
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                & X C C C C C C C C X S
                                                                                                                                                                                                                                                                                                                                      요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                       ઠ
                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8
                                                                                                                                                                                                                                                                                                      ð
                                                                                    ö
                                                                                                                                                                                   120
                                                                                                                                                                                                    180
                                                                                                                                                                                                                                                                                                                        240
                                                                                                                                                                                                                                                                                                                                                      271
                                                                                                                  9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          New hybrid proteins for use in tissue sealing and wound healing -comprising a tissue-binding domain from a protein covalently linked to a crosslinking domain of another protein.
                                                                                                                                                 91
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    282. .608
/label= collagen-binding domain
/note="acts as tissue-binding domain of hybrid protein"
1812. .2171
/label= heparin-binding_domain
/note= "acts as tissue-binding domain of hybrid protein"
                                                                                                                                   QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVIVCTCYGGSRGFNCESKP
                                                                                                                                                                                    EAEETCFDKYTGNTYRVGDTYERPKDSMIWDCTCIGAGRGRISCTIANRCHEGGQSYKIG
                                                                                                                                                                                                                                                     DTWRRPHETGGYMLECVCLGNGKGEWTCKPIAEKCFDHAAGTSYVVGETWEKPYQGWMWV
                                                                                                                                                                                                                                                                         DTWRRPHETGGYMLECVCLGNGKGEWTCKPIAEKCPDHAAGTSYVVGETWEKPYQGWMMV
                                                                                                                                                                                                                                                                                                                        DCTCLGEGSGRITCTSRNRCNDQDTRTSYRIGDTWSKKDNRGNLLQCICTGNGRGEWKCE
                                                                                                                                                                                                                                                                                                                                          DCTCLGEGSGR I TCTSRNRCNDODTRTSYRIGDTWSKKDNRGNLLOCI CTGNGRGEWKCE
                                                                                                                1 QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYGGSRGFNCESKP
                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Tissue binding; tissue sealing; wound healing; vulnerary; tissue-binding domain; TBD; crosslinking domain; fibronectin; fibrinogen-alpha; heparin-binding domain; collagen-binding domain; cell-binding domain; hybrid protein.
                                                                                  ö
                                                  Length 2386;
                                                                                Indels
                                                  2
                                                                                  ö
                                                 ; Score 1499; DB 2
; Pred. No. 7e-109;
0; Mismatches 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAR60021 standard; protein; 2446 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                         RHTSVQTTSSGSGPFTDVRAAV 262
                                                                                                                                                                                                                                                                                                                                                                                                            100.0%;
100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          92US-00998271.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (first entry)
                                           Query Match
Best Local Similarity 100.
Matches 262; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (ZYMO ) ZYMOGENETICS INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (revised)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WPI; 1994-249231/30.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Fibrinogen-alpha.
                 Sequence 2386 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                N-PSDB; AAQ70009.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           30-DEC-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          30-DEC-1992;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WO9416085-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            25-MAR-2003
23-FEB-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        21-JUL-1994
                                                                                                                                                                                                                                                                                                                                                        212
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAR60021;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Irani MH;
                                                                                                                                                   32
                                                                                                                                                                                 61
                                                                                                                                                                                                                  92
                                                                                                                                                                                                                                                    121
                                                                                                                                                                                                                                                                                       152
                                                                                                                                                                                                                                                                                                                      181
                                                                                                                                                                                                                                                                                                                                                                                         241
                                                                                                                                                                                                                                                                                                                                                                                                                         272
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Key
Domain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Domain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAR60021
```

```
ö
             This sequence represents the amino acid sequence of human fibronectin, a widely distributed glycoprotein present in extracellular matrices. The protein contains the motifs IGDS (AAM99553) and IGDQ (AAM99594) which can be used in peptides to stimulate cell migration for wound healing, periodontal tissue regeneration, angiogenesis, inhibition of tumour invasion and metastasis, and in relation to inflammation or connective
                                                                                                                                                                                                                                                                                                                                                                                                                           DTWRRPHETGGYMLECVCLGNGKGEWTCKPIAEKCFDHAAGTSYVVGETWEKPYQGWMMV 180
                                                                                                                                                                                                                                                                                                                   211
                                                                                                                                                                                                                                                                                                 61 EAEETCFDKYTGNTYRVGDTYERPKDSMIWDCTCIGAGRGRISCTIANRCHEGGQSYKIG 120
                                                                                                                                                                                                                                      9
                                                                                                                                                                                                                                                        32 QAQQMYQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYGGSRGFNCESKP 91
                                                                                                                                                                                                                                                                                                                                                                                   152 DTWRRPHETGGYMLECVCLGNGKGEWTCKPLAEKCFDHAAGTSYVVGETWEKPYQGWMMV
                                                                                                                                                                                                                                      1 QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYGGSRGFNCESKP
                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                       ;
0
                                                                                                                                                                       Length 2477;
                                                                                                                                                                                                       Indels
                                                                                                                                                                        Score 1499; DB 2;
Pred. No. 7.3e-109;
                                                                                                                                                                                                           ö
                                                                                                                                                                       Query Match
100.0%; Score 1499;
Best Local Similarity 100.0%; Pred. No. 7.3
Matches 262; Conservative 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 2477 AA
                                                                                                            tissue function
                                                                                                                                                                                                                                                                                                                               92
                                                                                                                                                                                                                                                                                                                                                                121
X88888888XX
                                                                                                                                                                                                                                      ઠ
                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                      ર્જ
                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                            à
                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
```

Search completed: September 30, 2005, 13:34:05 Job time : 110.675 secs

```
GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
                                                                                                                   OM protein - protein search, using sw model
```

September 30, 2005, 13:30:51; Search time 40.4373 Seconds (without alignments) 623.404 Million cell updates/sec Run on:

US-09-492-971B-15\_COPY\_4\_265 1499 Title:

QAQQMVQPQSPVAVSQSKPG......TSVQTTSSGSGPFTDVRAAV 262 score: Sequence: Perfect

**BLOSUM62** Scoring table:

Gapop 10.0 , Gapext 0.5

Total number of hits satisfying chosen parameters:

283416 segs, 96216763 residues

Searched:

seq length: 0 seq length: 200000000 Minimum DB Maximum DB Maximum

Minimum Match 0% Maximum Match 100% Listing first 45 summaries Post-processing:

PIR 79:\*
1: pir1:\*
2: pir2:\*
3: pir3:\*
4: pir4:\*

Database

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

zonadhesin - pig protein T22A3.8 [i hypothetical prote laminin alpha chai laminin alpha-2 ch fibronectin - chic hypothetical prote hypothetical prote notch protein homo Notch homolog prot EGF repeat transme hypothetical prote fibronectin precur Eibronectin - east Eibronectin - mous jagged protein pre zonadhesin - mouse adhesive plaque pr crumbs protein - f laminin beta-1 cha hypothetical prote notch protein homo cell-fate determin transmembrane prot fibronectin precur fibronectin - Afri tenascin precursor Xotch protein Eibronectin Description SUMMARIES FNBO S14428 A43908 151279 A29355 A49173 A56136 A56175 A35672 A49128 T30176 A32230 r15099 WPFB1 S18188 A40043 r47158 987908 28811 130201 FINE ü В Query Match Length 190 1020 103 1220 5376 2473 2139 2139 11584 11808 11790 11557 2253 2352 2352 2471 1687 550 2437 2476 2823 2823 3102 3106 2481 1417 5 1269 1269 228.5 164 138 138 128.5 128.5 118.5 116.5 113.5 113.5 110 109.5 109 109 1499 107.5 107.5 107.5 Result 

Balbiani ring 3 pr notch4 - mouse	thrombospondin 4 - protein F11C7.4 [i hypothetical prote	hypothetical prote tenascin-C - human notch-1 protein -	laminin alpha-1 ch E-selectin - bovin integrin beta-8 ch	fibrillin-1 precur fibrillin 1 precur integrin beta-6 ch heparan sulfate pr
S08167 T09059	A45441 E89753 T26639	T25933 A32160 A46019	MMMSA S36772 B41029	A55624 A47221 B37057 S18252
000	000	0 0 0	400	0000
1700	955 1722 306	1372 2201 2531	3084 485 768	2871 3002 577 3707
7.7	0.7	000	999	, , , , , , ,
105	104.5	104 104 104	104 103.5 103.5	103.5 103.5 103 103
31	1 W W W	36 37 38	9 4 4 0 4 1	4 4 4 4 2 6 4 2

## ALIGNMENTS

RESULT 1

```
fibronectin precursor [validated] - human N;Alternate names: fibronectin splice form ED-A (5)Becises: Homo sapiens (man) C;Becises: Homo sapiens (man) (2)Becises: Homo sapiens (man) (2)Becises: 197-Mov-1985 #Bequence revision 31-Mar-1993 #text change 09-Jul-2004 (2)Accession: A26460; A26284; S03917; A24854; A24476; A91008; A93529; A21011; A90495; A2 R;Dean, D.C.; Bowlus, C.L.; Bourgeois, S. Proc. Natl. Acad. Sci. US.A. 84, 1876-1880, 1987 A;Title: Cloning and analysis of the promoter region of the human fibronectin gene. A;Reference number: A26460; MUID:87175578; PMID:3031656 A;Accession: A26460 A;Accession: A26460 A;Residues: 1-49 -DEA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A; Cross-references: UNIPROT: P02751; UNIPROT: Q14327; GB:M15801; NID:g182686; PIDN: AAA533 R; Oldberg, A.; Ruoslahti, E. R; Oldberg, A.; Ruoslahti, E. B. Biol. Chem. 261, 2113-2116, 1986 A; Title: Evolution of the fibronectin gene. A; Reference number: A26284; MUID: 86111901; PMID: 3003095
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A; Accession: A26284
A; Molecule type: DNA
A; Residues: 1447-1540 < OLD>
A; Cross-references: GB:M12549; NID:g182688
A; Note: the authors translated the codon TTC for residue 1494 as Glu
R; Paolellal, G.; Henchcliffe, C.; Sebastio, G.; Baralle, F.E.
Nucleic Acids Res. 16, 3545-3557, 1988
A; Title: Sequence analysis and in vivo expression show that alternative splicing of ED-A; Reference number: $00848; MUID:88233940; PMID:3375063
A; Accession: $03917
A; Molecule type: DNA
A; Molecule type: DNA
A; Residues: 1594-1767, V, 1769-1783 < PAD>
A; Residues: 1594-1767, V, 1769-1783 < PAD>
A; Cross-references: EMBL:X07718; NID:931402
A; Note: the authors translated the codon AAC for residue 1631 as Asp
R; Vibe-Pedersen, K.; Magnusson, S.; Baralle, F.E.
FEBS Lett. 207, 287-291, 1986
A; Title: Donor and acceptor splice signals within an exon of the human fibronectin gene
A; Reference number: A24854; MUID:87030929; PMID:3770201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A, Accession: A24654
A, Molecule type: DNA
A, Residues: 1992-2147 «VIB»
A, Residues: 1992-2147 «VIB»
A, Cross-references: GB: X04530; NID: g31436
B, Gutman, A.; Yamada, K.M.; Kornblihtt, A.
FEBS Lett. 207, 145-148, 1986
A; Title: Human fibronectin is synthesized as a pre-propolypeptide.
A; Reference number: A24476; MUID: 87030890; PMID: 3770189
A; Accession: A24476
A; Status: not compared with conceptual translation
A; Molecule type: mRNA
A; Residues: 1-14, 'Q', 16-38 «GUT»
R; Kornblihtt, A.R.; Umezawa, K.; Vibe-Pedersen, K.; Baralle, F.E.
EMBO J. 4, 1755-1759, 1985
A; Title: Primary structure of human fibronectin: differential splicing may generate at
```

```
A;Residues: 293-301 <GRI>
R;Calaycay, J.; Pande, H.; Lee, T.; Borsi, L.; Siri, A.; Shively, J.E.; Zardi, L.
R;Calaycay, J.; Pande, H.; Lee, T.; Borsi, L.; Siri, A.; Shively, J.E.; Zardi, L.
Biol. Chem. 260, 12136-12141, 1985
A;Title: Primary structure of a DNA- and heparin-binding domain (domain III) in human pl
A;Reference number: A23901; MUID:86008277; PMID:3900070
A;Accession: A23901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A,Molecule type: protein
A,Residues: 616-677, Q', 679-703, PT', <CAL>
A;Residues: 616-677, Q', 679-703, PT', <CAL>
A;Residues: 616-677, Q', 679-703, PT', CAL>
J. Biol. Chem. 257, 9593-9597, 1982
A,Title: The Cell attachment domain of fibronectin. Determination of the primary structuly, A,Reference number: A92386; MUID:82265604; PMID:7050098
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A; Molecule type: protein, A; Molecule type: protein, A; Molecule type: protein, A; Molecule type: 1589, 71,7122-2058 <GAR3>
R; Residuces: 1589-1580, 71, 7122-2058 <GAR3>
Biochem. J. 274, 731-738, 1991
Biochem. J. 274, 731-738, 1991
Biochem. J. 274, 731-738, 1991
A; Title: Human plasma fibronectin. Demonstration of structural differences between the A; Reference number: S14357; MUID:91190085; PMID:2012601
A; Accession: S14357
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A;Molecule type: protein
MyResidues: 2071-2080;2112-2356 <GAR4>
C;Comment: The extra domain and connecting strand 3 are subject to developmental and tis
C;Comment: The extra domain and connecting strand 3 are high molecular weight glycoproteins,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Thromb. Res. 43, 469-477, 1986
A;Title: Two plasma fibronectin fragments with different gelatin-binding properties.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A,Molecule type: protein
A,Molecule type: protein
A,Residues: 1441-1548 «PIE»
A,Note: residues 1524-1527 are responsible for the cell-binding activity
R,Garcia-Pardo, A.; Rostagno, A.; Frangione, B.
Biochem. J. 241, 928, 1987
A;Title: Primary structure of human plasma fibronectin. Characterization
A,Reference number: A32517; MUID:87241275; PMID:3593230
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      F;616-706/Domain: heparin binding 
F;719-801/Domain: fibronectin type III repeat homology <3FB>
F;810-891/Domain: fibronectin type III repeat homology <3FC>
R;Griffin, C.A.; Calaycay, J.; Shively, J.E.; Smith, R.L.
Thromb. Res. 43, 469-477, 1986
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A;Molecule type: protein
A;Residuee: 1614-1630, T', 1722-2081,2113-2244 <TKE>
R;Garcia-Pardo, A.; Pearlstein, E.; Frangione, B.
Biol. Chem. 260, 10326, 10325, 1985
A;Title: Primary structure of human plasma fibronectin.
A;Reference number: A23891; MUID:85261459; PMID:4019516
                                                                                                                      A;Reference number: A60904; MUID:87019725; PMID:3532418
A;Accession: A60904
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A;Cross-references: GDB:119135; OMIM:135600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ation, and transformation.
                                                                                                                                                                                                                                   A, Molecule type: protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A; Accession: A92386
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A; Accession: A32517
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A; Accession: A23891
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A; Gene: GDB: FN1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            C,Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A; Accession: A019.8

A; Residues: 1594-2386 -8BEN-
A; Rocession: A2245; MUD: 918269; PIDN: AAA52462.1; PID: 9182697
B; Umezawa, K.; Kornblihtt, A.R.; Baralle, F.E.
FEBS Lett. 186, 31-34, 1985
A; Accession: A2244
A; Accession: A2245
A; Molecule type: mRNA
A; Residues: 1948-2067 - CWE-
A; Accession: B22245
A; Molecule type: mRNA
A; Residues: 1975-1991; A17-2039 -CWE-
A; Accession: B22245
A; Molecule type: mRNA
A; Residues: 1975-1991; A17-2039 -CWE-
A; Accession: B2245
A; Molecule type: mRNA
A; Residues: 1975-1991; A17-2039 -CWE-
A; Accession: B2245
A; Molecule type: mRNA
A; Residues: 1978-1991; A1, 1986
A; Title: Human liver fibronectin complementary DNAs: identification of two different mes
A; Reference number: 152394; MUID: 87026578; PMID: 3021206
A; Residues: 1978-1990, 2016-2018, NV, 2020-2081; A17-11-
A; Molecule type: mRNA
A; Residues: 1978-1990, 2016-2018, NV, 2020-2081; A18-2018
A; Accession: 165273
A; Residues: 1978-1990, 2016-2018, NV, 2020-2081; A18-2018
A; Molecule type: mRNA
A; Residues: 1978-1990, 2016-2018, NV, 2020-2081; A18-2018
A; Molecule type: mRNA
A; Residues: 1978-1990, 2016-2018, NV, 2020-2081, A18-2018
A; Molecule type: mRNA
A; Residues: 1978-1990, 2016-2018, NV, 2020-2081, A18-2018
A; Molecule type: mRNA
A; Residues: 1978-1990, A18-2018
A; Molecule type: MNA
A; Molecule type: mRNA
A; M
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ayrocession: A93282
Ayrocession: A93282
Ayrocession: A93282
Ayrocession: A93282
Ayrocession: A93286
Ayrocess references: G8xx0079
Bydroses.references: G8xx0079
Ayritle: Molecular cloning and nuclectide sequence of a cDNA clone coding for the cell a Ayritle: Molecular cloning and nuclectide sequence of a cDNA clone coding for the cell a Ayresidue type: mRNA
Ayresidues: 1434-1537 coll.
Aymolecule type: mRNA
Ayresidues: 1434-1537 coll.
Aymolecule type: mRNA
Ayresidues: 1434-1537 coll.
Ayrocess-references: G8xx00055; NID:g182680; PIDN:AAA52459.1; PID:g182683
Bydroses-references: G8x K00055; NID:g182680; PIDN:AAA52459.1; PID:g182683
Ayritle: Human cellular fibronectin: comparison of the carboxyl-terminal portion with ra Ayrecession: A90495; MuID:85280409; PMID:2992573
                                                                                                                                    A,Molecule type: mRNA
A,Rebidues: 32-1144,1346-2080;2112-2386 <XOR>
A;Residues: 32-1344,1346-2080;2112-2386 <XOR>
A;Cross-references: GB:XO2761
R;Kornblihtt, A.R.; Vibe-Pedersen, K.; Baralle, F.E.
R;Kornblihtt, A.R.; Vibe-Pedersen, K.; Baralle, F.E.
A;Crisses: 12, S853-5888, 1984
A;Title: Human fibronectin: cell specific alternative mRNA splicing generates polypeptid A;Reference number: A93529; MUID:84272258; PMID:6462919
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A, Accession: A2165
A, Molecule type: mRNA
A, Fesidues: 2291-2386 (xO3-)
A, Cross-references: GB: KO0799; NID: g182681; PIDN: AAA52460.1; PID: g182684
A, Cross-references: GB: XO0799; MID: g182681; PIDN: AAA52460.1; PID: g182684
B, Garcia-Pardo, A.; Pearlstein, E.; Frangione, B.
A, Title: Primary structure of human plasma fibronectin.
A, Reference number: A92398; MUID: 84032463; PMID: 6630202
A, Accession: A92398
A, Molecule type: protein
A, Residues: 32-47, CC', 49-51, 'S', 53-72, 'A', 74-290 cGAR1>
B, Garcia-Pardo, A.; Gold, L.1.
Arch. Blochem: Blophys: 304, 181-188, 1993
A, Title: Further characterization of the binding of fibronectin to gelatin reveals the A, Reference number: S34791; MUID: 93312001; PMID: 8323285
    Reference number: A91008; MUID:85284965; PMID:2992939
                                                                                              Status: nucleic acid sequence not shown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A;Accession: S34791
A;Molecule type: protein
A;Residues: 291-300;551-560 <GAR2>
                                                                                                                                                                                                                                                                                                                                                                                                                                                            Accession: A93529
```

Characterization of a 31,000-dal

Characterization of a 38 kDa dom

```
Best Local Similarity 95.4 Matches 250; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                fibronectin precursor - rat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A, Accession: B21165
A, Molecule type: mRNA
A, Residues: 2170-2265
A, Title: Thogersen, H.C.; Skorstengaard, K.; Vibe-Pedersen, K.; Sahl, P.; Sottr
Proc. Natl. Acad. Sci. U.S.A. 80, 137-141, 1983
A, Title: Partial primary structure of bovine plasma fibronectin: three types of internal
A, Reference number: A23292
A, Molecule type: protein
A, Residues: 1-16, C', 18-20, S', 22-432,447-463;1367-1517;1567-1673;2062-2176, N', 2178-226
C, Comment: The plasma fibronectin molecule consists of two chains, which are connected by C, Comment: Plasma fibronectin molecule consists of two chains, which are connected by C, Comment: Plasma fibronectin synthesized by hepatocytes.
C, Comment: Plasma fibronectin is synthesized by hepatocytes.
C, Superfamily: fibronectin is synthesized by hepatocytes.
C, Superfamily: fibronectin type I repeat homology; fibronectin type I repeat homology <1F2>
C, Reywords: acute phase; alternative splicing; collagen binding; duplication; extracellu F; 21-44/Domain: fibronectin type I repeat homology <1F2>
F; 66-104/Domain: fibronectin type I repeat homology <1F3>
F; 110-148/Domain: fibronectin type I repeat homology <1F3>
F; 155-194/Domain: fibronectin type I repeat homology <1F3>
F; 210-239/Domain: fibronectin type I repeat homology <1F3>
F; 210-239/Domain: fibronectin type I repeat homology <1F5>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              C;Species: Bos primigenius taurus (cattle)
C;Species: Bos primigenius taurus (cattle)
C;Date: 31-Dec-1988 #sequence_revision 31-Dec-1988 #text_change 09-Jul-2004
C;Accession: A26452; B21165; A3292
R;Skorstengaard, K.; Jensen, M.S.; Sahl, P.; Petersen, T.E.; Magnusson, S.
Eur. J. Biochem. 161, 441-453, 1986
A;Title: Complete primary structure of bovine plasma fibronectin.
A;Reference number: A26452; MUID:87054047; PMID:3780752
A;Accession: A26452; MUID:87054047; PMID:3780752
A;Accession: A26452
A;Residues: 1-2265 <8KO>
A;Residues: 1-2265 <8KO>
A;Cross-references: UNIPROT:P07589
A;Cross-references: UNIPROT:P07589
B;Cornalinte, A.R.; Vibe-Pedersen, K; Baralle, F.E.
Proc. Natl. Acad. Sci. U.S.A. 80; 3218-3222, 1983
A;Title: Isolation and characterization of CDNA clones for human and bovine fibronectine
                                                                                                                                                                                                                                                       ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     240
                                                                                                                                                                                                                                                                                                                                                                                                                                                       EAEETCFDKYTGNTYRVGDTYERPKDSMIWDCTCIGAGRGRISCTIANRCHEGGQSYKIG 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     92 BAEBTCFDKYTGNTYRVGDTYBRPKDSMIWDCTCIGAGRGRISCTIANRCHEGGQSYKIG 151
                                                                                                                                                                                                                                                                                                                        9
                                                                                                                                                                                                                                                                                                                                                                                  91
                                                                                                                                                                                                                                                                                                                                                                    32 QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQMERTYLGNVLVCTCYGGSRGFNCESKP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        152 DTWRRPHETGGYMLECVCLGNGKGEWTCKPIAEKCFDHAAGTSYVVGETWEKPYQGWMMV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DCTCLGEGSGRITCTSRNRCNDQDTRTSYRIGDTWSKKDNRGNLLQCICTGNGRGFWKCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           212 DCTCLGEGSGRITCTSRNRCNDQDTRTSYRIGDTWSKKDNRGNLLQCICTGNGRGEWKCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DTWRRPHETGGYMLECVCLGNGKGEWTCKPIAEKCFDHAAGTSYVVGETWEKPYQGWMVV
                                                                                                                                                                                                                                                                                                                        1 QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYGGSRGFNCESKP
                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                       ö
                                                                                                                                                                                     Length 2386;
                        F;996-1077/Domain: fibronectin type III repeat homology <1FE>F;1086-1164/Domain: fibronectin type III repeat homology <3FE>F;1173-1258/Domain: fibronectin type III repeat homology <3FE>F;1266-1349/Domain: fibronectin type III repeat homology <3FH>
                                                                                                                                                                                                                                                       Indels
   <3FD>
                                                                                                                                                                                     Query Match 100.0%; Score 1499; DB 1; Best Local Similarity 100.0%; Pred. No. 3.4e-109; Matches 262; Conservative 0; Mismatches 0;
F;906-988/Domain: fibronectin type III repeat homology
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       241 RHTSVQTTSSGSGPFTDVRAAV 262
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          272 RHTSVQTTSSGSGPFTDVRAAV 293
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          fibronectin - bovine
                                                                                                                                                                                                                                                                                                                                                                                                                                                       61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        181
                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
```

```
F;277-577/Domain: collagen binding <CBR>
F;277-577/Domain: collagen binding <CBR>
F;277-577/Domain: clbronectin type Ir repeat homology <2F7-
F;380-370/Domain: fibronectin type Ir repeat homology <2F7-
F;380-477/Domain: fibronectin type Ir repeat homology <2F7-
F;480-577/Domain: fibronectin type Ir repeat homology <1F8-
F;580-661/Domain: fibronectin type III repeat homology <FN3D-
F;580-661/Domain: fibronectin type III repeat homology <FN3D-
F;580-677/Domain: fibronectin type III repeat homology <FN3D-
F;580-1046/Domain: fibronectin type III repeat homology <FN3D-
F;581-1046/Domain: fibronectin type III repeat homology <FN3D-
F;581-1046/Domain: fibronectin type III repeat homology <FN3D-
F;1055-1146/Domain: fibronectin type III repeat homology <FN3D-
F;1050-1146/Domain: fibronectin type III repeat homology <FN3D-
F;1051-1146/SylDomain: fibronectin type III repeat homology <FN3D-
F;1051-1140/SylDomain: fibronectin type II
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DIWRRPHETGGYMLECVCLGNGKGEWTCKPIAEKCFDQAAGTSYVVGETWEKPYQGWMW 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     181 DCTCLGEGSGRITCTSRNRCNDQDTRTSYRIGDTWSKKDNRGNLLQCICTGNGRGEWKCE 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              61 BPEETCPDKYTGNTYRVGDTYERPKDSMIWDCTCIGAGRGRISCTIANRCHEGGQSYKIG 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            C;Species: Rattus norvegicus (Norway rat)
C;Date: 28-Oct-1994 #sequence_revision 28-Oct-1994 #text_change 09-Jul-2004
C;Accession: S14428; S12455; Ā22319; S46203; S00459; A27252; I59049
R;Hynes, R.O.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 QAQQIVQPQSPLTVSQSKPGCYDNGKHYQINQQWERTYLGSALVCTCYGGSRGFNCESKP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  BABETCFDKYTGNTYRVGDTYERPKDSMIWDCTCIGAGRGRISCTIANRCHEGGQSYKIG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DTWRRPHETGGYMLECVCLGNGKGEWTCKPIAEKCFDHAAGTSYVVGETWEKPYQGWMWV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DCTCLGEGSGRITCTSRNRCNDQDTRTSYRIGDTWSKKDNRGNLLQCICTGNGRGEWKCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYGGSRGFNCESKP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 2265;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       6; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       96.5%; Score 1447; DB 1; 95.4%; Pred. No. 3.8e-105;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           6; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 241 RHTSLQTTSAGSGSFTDVRTAI 262
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RHISVQTISSGSGPFIDVRAAV 262
```

ö

Fri

```
fibronectin - African clawed frog
C;Species: Xenopus laevis (African clawed frog)
C;Species: Xenopus laevis (African clawed frog)
C;Species: 31-Dec-1993 #sequence_revision 31-Dec-1993 #text_change 12-Feb-1999
C;Accession. 4443908
R;DeSimone, D.W.; Norton, P.A.; Hynes, R.O.
Dev. Biol. 149, 357-369, 1992
A;Title: Identification and characterization of alternatively spliced fibronectin mRNAs A;Reference number: A43908; MUD:92111942; PMID:1730390
A;Accession: A43908
A;Accession: A43908
A;Accession: A43908
A;Accession: December of sequence not shown; not compared with conceptual translation A;Molecule type: mRNA
A;Residues: 1-2481 cDES>
A;Cross-references: GB:M77820
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A,Note: sequence extracted from NCBI backbone (NCBIP:77473)
C,Superfamily: fibronectin; fibronectin type I repeat homology; fibronectin type II repeat homology; fibronectin type II repeat homology in the second i
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         EAEETCFDKYTGNTYRVGDTYERPKDSMIWDCTCIGAGRGRISCTIANRCHEGGQSYKIG 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      153 DKWRRPHETGGYMLECLCLGNGKGEWTCKPIAEKCFDHAAGTSYVVGETWEKPYQGWMV 212
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DCTCLGEGSGRITCTSRNRCNDQDTRTSYRIGDTWSKKDNRGNLLQCICTGNGRGEWKCE 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    92
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYGGSRGFNCESKP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DIWRRPHEIGGYMLECVCLGNGKGEWICKPIAEKCFDHAAGISYVVGEIWEKPYQGWMMV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  368,2366-2378,2385-2411,2409-2420/Disulfide bonds: #status predicted F:2458/Disulfide bonds: interchain (to 2462) #status predicted F:2462/Disulfide bonds: interchain (to 2458) #status predicted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ٦;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DB 2; Length 2477;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           94.2%; Score 1412.5; DB 2; Length 92.7%; Pred. No. 2e-102; ive 10; Mismatches 8; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                || :|: |:||| ||||| |:
RHV-LQSASAGSGSFTDVRTAI 293
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RHISVQTISSGSGPFIDVRAAV 262
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity 92.7
Matches 243; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           213
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        33
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             93
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    273
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           임
                                   summitted to the RMRA Data Library, July 1989
A;Accessions S14428
A;Accessions S14438
A;Accessions Asingle art fibromectin gene generates three different mRNAs by alternative sprace are signal and characterization of fibromectin-lapha(1)-microglobulin complex in A;Accessions Asingle art fibromectin gene generates three different mRNAs by alternative sprace are signal and characterization of fibromectin-lapha(1)-microglobulin complex in A;Accessions Asingle art fibromectin gene generates three different mRNAs by alternative sprace are signal and characterization of fibromectin-lapha(1)-microglobulin complex in A;Accessions Asingle art fibromectin gene generates three different mRNAs by alternative sprace are signal and characterization of fibromectin-lapha(1)-microglobulin complex in A;Accessions Asingle are signal and characterization of fibromectin-lapha(1)-microglobulin complex in A;Accessions S42503
A;Accessio
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A/Cross-references: GB:MI1750; NID:g204164; PIDN:AAA41170.1; PID:g554437
C;Genetics:
A/Introns: 51/1; 94/1; 2416/3; 2454/3
C;Superfamily: fibronectin, fibronectin type I repeat homology, fibronectin type II repeat homology a/F2>
F;1-32/Domain: signal sequence #status predicted a/AAT>
F;3-84/7/Product: fibronectin fype I repeat homology a/F2>
F;98-135/Domain: fibronectin type I repeat homology a/F2>
F;142-180/Domain: fibronectin type I repeat homology a/F2>
F;33-27/1/Domain: fibronectin type I repeat homology a/F2>
F;30-342/Domain: fibronectin type I repeat homology a/F2>
F;30-342/Domain: fibronectin type II repeat homology a/F2>
F;30-461/Domain: fibronectin type II repeat homology a/F2>
F;30-461/Domain: fibronectin type II repeat homology a/F2>
F;318-555/Domain: fibronectin type I repeat homology a/F3>
F;518-555/Domain: fibronectin type I repeat homology a/F3>
F;60-692/Domain: fibronectin type I repeat homology a/F3>
F;609-692/Domain: fibronectin type II repeat homology a/F3>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A,Accession: A27252
A,Molecule type: mRNA
A,Resdues: 1586-1720, T',1722,1813-2477 <SC2>
R,Odermatt, E.; Tamkun, J.W.; Hynes, R.O.
Proc. Natl. Acad. Sci. U.S.A. 82, 6571-6575, 1985
A;Title: Repeating modular structure of the fibronectin gene: Relationship to protein st
A;Reference number: 159049; MUID:86016741; PMID:3863113
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A,Status: translated from GB/EMBL/DDBJ
A,Molecule type: DNA
A,Residues: 1722-1810 «RES»
A,Cross_references: GB:M11750; NID:g204164; PIDN:AAA41170.1; PID:g554437
                          Library, July 1989
                          submitted to the EMBL
```

II rep.

```
C,Accession: A29355
R;Norton, P.A.; Hynes, R.O.
Nol. Cell. Biol. 7, 4297-4307, 1987
A;Title: Alternative splicing of chicken fibronectin in embryos and in normal and trans. A;Reference number: A29355; MUID:88142820; PMID:2830487
A;Accession: A29355
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  y; fibronectin type II rep
matrix; glycoprotein; hete
                homology; fibronectin type
                                                                                                                                                                                                                                                                                                                                   æ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ů,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    121 RHEEGHMANCTCYGQGRGWWKCDAIDQCQDSETRQFYQIGDSW-EKHVQGVRYQCYSIGR 179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    173 PYQGWMWVDCTCLGEGSGRITCTSRNRCNDQDTRTSYRIGDTWSKKDNRGNLLQCICTGN 232
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  924 VGNTV-----SEGLN----QPADDTCYDTYTGSFYSIGEEWERLSETGFKLW-CQCLG 971
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               39 LGNVLVCTCYGGSRGFNCESKPEAEETCFDKYTGNTYRVGDTYERPKDS--MIWDCTCIG 96
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               fibronectin - chicken (fragment)
C;Species: Gallus gallus (chicken)
C;Date: 31-Dec-1988 #sequence_revision 31-Dec-1988 #text_change 09-Jul-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   65 TCFDKYTGNTYRVGD-TYERPKDSMIWDCTCIG--AGRGRISCTIANRCHE-----GGQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           116 SYKIGDTWRRPHETGGYMLECVCLGNGKGEWTC---KPIAEKCFDHAAGTSYVVGETWEK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          972 FGSGHFRCDSSKWCHDNGVNYKIGEKWDRQGE-NGQMIDCTCLGNGKGEF 1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     97 AGRGRISCTIANRCHEGGQSYKIGDTWRRPHETGGYMLECVCLGNGKGEW 146
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     15;
                                                                                                                                                                                                                                                                                                                                       18;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 1020;
                                                                                                                                                                                                                                                    Length 190;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  C;Superfamily: fibronectin; fibronectin type I repeat homology;
C;Reywords: alternative splicing; duplication; extracellular mat
F;1-86/Domain: fibronectin type III repeat homology <FN3H>
                                                                                                                                                                                                                                                                                                                                       74; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         F;1-0070Main: Introduction type III repeat homology <FN31>F;180-262/Domain: fibronectin type III repeat homology <FN31>F;180-262/Domain: fibronectin type III repeat homology <FN33>F;27-259/Region: cell attachment (R-G-D) motif (R-G-D) motif
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     31; Indels
            C;Superfamily: fibronectin; fibronectin type I repeat homo F;7-48/Domain: fibronectin type II repeat homology <2F2> F;5-9-5/Domain: fibronectin type I repeat homology <1F> F:105-142/Domain: fibronectin type I repeat homology <1F> F:148-186/Domain: fibronectin type I repeat homology <1F9>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  15.2%; Score 228.5; DB 2; 40.0%; Pred. No. 3e-10;
                                                                                                                                                                                                                                                ; Score 269; DB 2;
; Pred. No. 4.3e-14;
33; Mismatches 74
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     20; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A;Molecule type: mRNA
A;Residues: 1-1020 <NOR>
A;Cross-references: UNIPROT:P11722
                                                                                                                                                                                                                                                        Query Match
Best Local Similarity 33.5%;
Matches 63; Conservative 33
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         44; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GRGEWKCE 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                180 GIGEWHCQ 187
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity
Matches 44; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A; Introns: 176/3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  233
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       C;Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ~
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT
A49173
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                      ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
F;234-273/Domain: fibronectin type I repeat homology <1F5.
F;309-343/Domain: fibronectin type I repeat homology <1F6.
F;301-467/Domain: fibronectin type II repeat homology <2F1.
F;361-402/Domain: fibronectin type II repeat homology <2F2.
F;411-509/Domain: fibronectin type II repeat homology <1F7.
F;412-509/Domain: fibronectin type II repeat homology <1F8.
F;410-801/Domain: fibronectin type III repeat homology <1F8.
F;610-691/Domain: fibronectin type III repeat homology <FN3A.
F;719-801/Domain: fibronectin type III repeat homology <FN3A.
F;719-801/Domain: fibronectin type III repeat homology <FN3D.
F;906-988/Domain: fibronectin type III repeat homology <FN3D.
F;906-107/Domain: fibronectin type III repeat homology <FN3D.
F;108-1165/Domain: fibronectin type III repeat homology <FN3D.
F;135-11440-1301/Domain: fibronectin type III repeat homology <FN3D.
F;135-11440-1301/Domain: fibronectin type III repeat homology <FN3D.
F;135-11440-1301/Domain: fibronectin type III repeat homology <FN3D.
F;135-11804/Domain: fibronectin type III repeat homology <FN3D.
F;135-11804/Domain: fibronectin type III repeat homology <FN3D.
F;130-2075/Domain: fibronectin type III repeat homology <FN3D.
F;130-2075/Domain: fibronectin type III repeat homology <FN3D.
F;130-2075/Domain: fibronectin type II repeat homology <FN3D.
F;230-2287/Domain: fibronectin type II repeat homology <FN3D.
F;230-2287/Domain: fibronectin type II repeat homology <FN3D.
F;230-2387/Domain: fibronectin type II repeat homology <FN3D.
F;230-2387/Domain: fibronectin type II repeat homology <FN3D.
F;245-245/Domain: fibronectin type I repeat homology <FN3D.
F;245-245/Bylsulfide bonds: interchain (to 2459) #status predicted
F;2453/Bisulfide bonds: interchain (to 2459) #status predicted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A;Cross-references: UNIPROT:Q91400; GB:S76886; NID:g914305; PIDN:AAB34250.1; PID:g914304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         new
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     regenerating
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DCTCLGEGSGRITCTSRNRCNDQDTRTSYRIGDTWSKKDNRGNLLQCICTGNGRGEWKCE 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       EAEETCFDKYTGNTYRVGDTYERPKDSMIWDCTCIGAGRGRISCTIANRCHEGGQSYKIG 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DTWRRPHETGGYMLECVCLGNGKGEWTCKPIAEKCFDHAAGTSYVVGETWEKPYQGWMMV 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         94
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  C.Species: Notophthalmus viridescens, Triturus viridescens (eastern newt)
C.Date: 13-Sep-1996 #sequence_revision 13-Sep-1996 #text_change 09-Jul-2004
C.Accession: I51279
R.Mace, J.D.; Tassava, R.A.
Dev. Dyn. 202, 153-164, 1995
A.Title: Examination of fibronectin distribution and its sources in the regravence number: I51279; MUID:95252528; PMID:7734733
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         37 QQQQVVQPQG--TQDNHQKGCYDNGKYYQINQQWERTYLGNTLVCTCYGGGRGFNCESKP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DIWRRPHETGGYMLECVCLGNGKGEWTCKPVAERCYDNTAGTSYVVGQTWEKPYQGWMVV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYGGSRGFNCESKP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DB 2; Length 2481;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               20; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match 86.5%; Score 1296; DB 2; Best Local Similarity 83.2%; Pred. No. 2.6e-93; Matches 218; Conservative 22; Mismatches 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A;Accession: I51279
A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type: mRNA
A;Residues: 1-190 <NAC>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RHTSVQTTSSGSGPFTDVRAAV 262
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         fibronectin - eastern newt (fragment)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   155
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      92
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ç
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
```

Fri

```
Conadhesin - mouse

NiAlternate names: sperm-specific membrane protein

Cispecies 13-Dec-1999 #text_change 09-Jul-2004

Cipate: 03-Dec-1999 #sequence_revision 03-Dec-1999 #text_change 09-Jul-2004

Cipate: 03-Dec-1999 #sequence_revision 03-Dec-1999 #text_change 09-Jul-2004

Cipate: 03-Dec-1999 #sequence_revision 03-Dec-1999 #text_change 09-Jul-2004

Ridao, Z.; Garbers, D.L.

J. Biol. Chem. 273, 3415-3421, 1998

A;Title: Species diversity in the structure of zonadhesin, a sperm-specific membrane pro

A;Reference number: Z22080; MUID:98123114; PMID:9452463

A;Status: preliminary; translated from GB/EMBL/DDBJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A,Cross-references: UNIPROT:088799; EMBL:U97068; NID:g3327420; PID:g3327421; PIDN:AAC266
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               4557 VPSSECGCKDAHGVLIPESKTW--VSRGCTKNCTCKGGTVQCHDFSCPT----GSRCLDN 4610
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              4783 CVCQPGYLLNKDTCVHKNQCGCKDIRGNIIPAGNTWISSDCTQ8---CACTD---GVIQC 4836
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    4671 LHKNKCMLRIHCDCKDFQGSLIKTGQTW----ISSGCSKICTCKG---GFFQCQSYKCPS 4723
                                                                                                   165
                                                                                                                                                --TCVCKEGWEGP-ICTQNTNDCSPHPCYNSGTC-V 799
                                                                                                                                                                                                -TCLGEGSG-RITCT---SRNRC 200
                                                                                                                                                                                                                                               800 DGDNW---YRCECAPGFAGPDCRININECQSSPCAFGATCVDEINGYQCICPPGHSGAKC 856
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         705 SRDSQCDEATC--NNGGTCYDEVDTFK------CMCPGGWEG-TTCNIARNSSCLPN
                                                                                                      RCHEGGQSYKIGDTWRRPHETGGYMLECVCLGNGKGEWTCKPIAEKCFDHA---AGTSYV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       -----GQSYKIGDTWRRPHETGGYMLECVCLGNGKGEWTCK---PI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     4724 GTQCEESEDGSSNCVSSTMKCPANS-LYTHCLPTCLPSCSNPDGRCEGTSHKAPSTCREG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ----GRITCTSRNRCNDQDTRTS-YRIGDTWSKKDNRGNLLQCICTGNGRGEWKC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            14 VSOSKPGCYD-NGKHYQINQQWERTYLGNVLVCTCYGGS----RGFNCESKPEAEBTCFDK
                                                                                                                                                                                                                                                                                                                          HEVSGRSCIIMGRVILDGAKWDDDCNTCQCL---NGRVACSKVWCGPRPCRLH 906
                                                                                                                                                                                                                                                                                                 NDODIRISYRIGDI --- WSKKDNRGNLLQCICTGNGR------GEWKCERH 242
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  94;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        152 AEKCFDHAAGTSYVVGETWEKPYQGWMMVDC--TCLG------EGS---
         SKPEA - - EETCFDKYTGNTYRVGDTYERPKDSMIWDCTCIGAGRGRISCTIA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           70 YTGNTYRVGDTYERPKDSMIWDC--TCIGAGR-----GRISCTIANRCHEG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             9.0%; Score 135; DB 2; Length 5376; 22.6%; Pred. No. 0.028; ive 34; Mismatches 105; Indels 9.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A)Description: functions in multiple cell adhesion processes A;Note: found exclusively on the apical region of the sperm head C;Keywords: cell adhesion
                                                                                                                                                753 PCHNGGTCVVNGDSF-----
                                                                                                                                                                                                VGETWEKPYQ ----GWMMVDC-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Best Local Similarity 22.69
Matches 68; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A; Molecule type: mRNA
A; Residues: 1-5376 < GAO>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 E 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A; Map position: 5
         28
                                                                                                      109
                                                                                                                                                                                                  166
                                                                                                                                                                                                                                                                                                 201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     190
                                                                                                                                                                                                                                                                                                                                           857
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT
A56175
         ઠે
                                            셤
                                                                                                 à
                                                                                                                                         q
                                                                                                                                                                                           Š
                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                 ઠ
                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                   SV40-infected moun
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Jaysav Processis Processis actives norvegical sequence_revision 28-Apr-1995 #text_change 21-Jul-2003 C; Species: Rattus norvegical sequence_revision 28-Apr-1995 #text_change 21-Jul-2003 C; Date: 28-Apr-1995 #sequence_revision 28-Apr-1995 #text_change 21-Jul-2003 C; Accession: Shawber, C.J.; Boulter, J.; Weinmaster, G. R; Lindeell, C.E.; Shawber, C.J.; Boulter, J.; Weinmaster, G. A; Lindeell, C.E.; Shawber, C.J.; Boulter, J.; Weinmaster, G. A; Title: Jagged: a mammalian ligand that activates Notchl. A; Reference number: A56136; MUID:95211842; PMID:7697721 A; Accession: A56136
A; Accession: A56136
A; Molecule Cype: mNAA
A; Residues: 1-1220 < LIN>
A; Cross-references: GB:L38483
F; 7379-410/Domain: EGF homology < EGF>F; 749-410/Domain: EGF homology < EGF>F; 634-665/Domain: EGF homology < EGF>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ï
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          645 CIDGVNSYKCICSDGWEGAHCENNINDCSQNPCHYGGTCRDLVNDFYCDCKNGWKGKTCH 704
C;Species: Mus musculus (house mouse)
C;Date: 19-Dec-1993 #sequence revision 18-Nov-1994 #text_change 09-Jul-2004
C;Accession: A49173; A31371; G60597
Exp. Cell Res. 202, 464-470, 1992
A;Title: Fibronectin gene expression in proliferating, quiescent, and SV40-i A;Reference number: A49173; MUID:93011702; PMID:1327855
A;Accession: A49173
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  21 CYDNGKHYQINQQWERTYLGNVLVCTCYGGSRGFNCES--KPEAEETCFDKYTGNTY 75
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           11 CYDDGKTYHVGEQWQKEYLGAICSCTCFGGQRGWRCDNCRRPGAAEPSPDGTTGHTY 67
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                95; Indels 102;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 1220;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 103;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     16; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match 10.9%; Score 164; DB 2; Best Local Similarity 47.4%; Pred. No. 3.9e-06; Matches 27; Conservative 12; Mismatches 16.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match 9.2%; Score 138; DB 2; Best Local Similarity 23.9%; Pred. No. 0.0042; Matches 70; Conservative 26; Mismatches 95
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                21 CYDNGKHYQ--INQOWERTY--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        jagged protein precursor
C;Species: Rattus norvegi
C;Date: 28-Apr-1995 #~~
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠ
```

```
C;Species (Gallus gallus (chicken)
C;Species (Gallus gallus (chicken)
C;Species (Gallus gallus (chicken)
C;Date: 10-Sep-1999 #sequence revision 10-Sep-1999 #text change 09-Jul-2004
C;Accession: A32230; B32230; A33379; B33379; C33379; S01292; A30903
R;Jones, F.S.; Hoffman, S.; Cunningham, B.A.; Edelman, G.M.
R;Jones, F.S.; Hoffman, S.; Cunningham, B.A.; Edelman, G.M.
A;Title: A detailed structural model of cytoactin: protein homologies, alternative RNA
A;Reference number: A32230; MuID:89184536; PMID:2467292
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A;Molecule type: DNA
A;Residues: 1-1810 <JON>
A;Cross-references: UNIPROT:Q90824; GB:J04519; NID:g211717; PIDN:AAA48745.1; PID:g21171
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A; Accession: B32230
A; Status: preliminary
A; Molecule type: mRNA
A; Molecule type: mlogona coror mlogona coror mlogona coror mlogona of tenascin: dissection of the active sites by recombin
A; Reference number: A33379; MUID: 90030407; PMID: 2478295
A; A; Accession: A33379
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A; Molecule type: mRNA
A; Residues: 1-204, 'G', 206-221, 'A', 223-380, 'D', 382-386,'H', 388-444,'HN', 447-450,'V', 452-
A; Residues: 1-204,'G', 206-221, 'A', 223-380,'D', 382-386,'H', 388-444,'HN', 447-450,'V', 452-
A; Status: preliminary; nucleic acid sequence not shown; not compared with conceptual tr
A; Molecule type: mRNA
A; Residues: 1-204,'G', 206-221,'A', 223-380,'D', 382-386,'H', 388-444,'HN', 447-450,'V', 452-
A; Residues: 1-204,'G', 206-221,'A', 223-380,'D', 382-386,'H', 388-444,'HN', 447-450,'V', 452-
A; Residues: 1-204,'G', 206-221,'A', 223-380,'D', 382-386,'H', 388-444,'HN', 447-450,'V', 452-
A; Residues: 1-204,'G', 206-221,'A', 223-380,'D', 382-386,'H', 388-444,'HN', 447-450,'V', 452-
A; Residues: 1-204,'G', 206-221,'A', 223-380,'D', 382-386,'H', 388-444,'HN', 447-450,'V', 452-
A; Residues: 1-204,'G', 206-221,'A', 223-380,'D', 382-386,'H', 388-444,'HN', 447-450,'V', 452-
B; Residues: 1-204,'G', 206-221,'A', 223-380,'D', 382-386,'H', 388-444,'HN', 447-450,'V', 452-
B; Residues: 1-204,'G', 206-221,'A', 223-380,'D', 382-386,'H', 388-444,'HN', 447-450,'V', 452-
B; Residues: 1-204,'G', 206-221,'A', 223-380,'D', 382-386,'H', 388-444,'HN', 447-450,'V', 452-
B; Residues: 1-204,'G', 206-221,'A', 223-380,'D', 382-386,'H', 388-444,'HN', 447-450,'V', 452-
B; Residues: 1-204,'G', 206-221,'A', 223-380,'D', 382-386,'H', 388-444,'HN', 447-450,'V', 452-
B; Residues: 1-204,'G', 206-221,'A', 223-380,'D', 382-386,'H', 388-444,'HN', 447-450,'V', 452-
B; Residues: 1-204,'G', 206-221,'A', 223-380,'D', 382-386,'H', 388-444,'HN', 447-450,'V', 452-40,'H', 141-16: Tenascin: CDNA cloning and induction by TGF-beta.
A; Reference number: S01292; MID: 2460335
A; Accession: S01292, MID: 2400315
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A,Note: part of this sequence was confirmed by protein sequencing
C;Superfamily: tenascin; EGF homology; fibrinogen beta/gamma homology; fibronectin type
C;Keywords: alternative splicing; calcium binding; call adhesion; duplication; extracel
F;1-22/Domain: signal sequence #status predicted <SIG>
F;23-33/Domain: propeptide #status predicted <PRO>
F;34-1810/Product: tenascin 230K #status predicted <WAT>
F;223-249/Domain: EGF homology <EGFI>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A;Molecule type: mRNA
A;Residues: 27-181,'R',183-204,'G',206-221,'A',223-380,'D',382-386,'H',388-444,'HN',447
A;Cross-references: EMBL:X08030
                                                                                                                                                                                                                                                                 122 TWRRPHETGGYMLECVCLGNGKGEWTCKPI---AEKCFDHAAGTSYVVGETWEKPYQGWM 178
                                                                                                                                                                                                                                                                                                                                                                                 441 --RCLHTYGWY--TCQCLDGWGGBICDRPMTCQTQQCFNG-----GTCLDKP---I 484
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              179 MYDCTCLGEGSGRITCTSRNRCNDQDTRTSYRIGDTWSKKDNRGNLLQCICTGNGRGEWK 238
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     485 GFQCLCPPEYTGEL-CQIAPSCAQQCPIDSECVGG-------KCVCKPGSSG-YN 530
             DKYTGNTYRVGDTYERPXDSMIWDCTCIGAGRGRISCTI-----ANRCHEGGQSYKIGD 121
                                                                                                                                          -------FSCDCSGTGYTGAFCQTNVDECDKNPCLNGG-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A;Status: preliminary; nucleic acid sequence not shown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A;Status: not compared with conceptual translation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 N;Alternate names: cytotactin; hexabrachion N;Contains: tenascin 190K; tenascin 200K
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  239 CERHTSVQTTSSGSG 253
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                531 CQ-----TSTGDG 538
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            tenascin precursor - chicken
                                                                                                                                          405 DRING----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A; Status: preliminary
             89
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 12
                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Š
             Š
                                                                                                                                                                                                                                                                       ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A; Accession: A35672
A; Status: preliminary
A; Molecule type: mRNA
A; Molecule type: mRNA
A; Residues: 1-2139 cTEP>
A; Cross-references: UNIPROT: P10040; GB: M33753
A; Once: the authors translated the codon GGC for residue 1928 as Cys, and TAT for residu
C; Genetics:
A; Gene: FlyBase: FlyBase: FlyBane: FlyBane: FlyBase: FlyBa
                                                                                                                                                                    Cybace: 2.7-Apr.1393 #Sequence_revision 03-Oct-1393 #text_cnange 03-001-2004
Cybaces and A56175
Rinoue, K.; Takeuchi, Y.; Miki, D.; Odo, S.
J. Biol. Chem. 270, 6698-6701, 1995
A.Title: Mussel adhesive plaque protein gene is a novel member of epidermal growth factor A; Reference number: A56175; MUD:95204464; PMID:7896812
A; Reference number: A56175; MUD:95204464; PMID:7896812
A; Accession: A56175
A; Rolecule type: mRNA
A; Residues: 1-473 <INO
A; Cross-references: UNIPROT:025464; GB:D43794; NID:g602767; PIDN:BAA07852.1; PID:dl00843
C; Keywords: duplication
F:1-17/Domain: EGF homology <EGFP:
F:387-419/Domain: EGF homology <EGFP:
F:429-460/Domain: EGF homology <EGFP:
F:23,36,43,56,75,382,424,455,468,473/Modified site: 3',4'-dihydroxyphenylalanine (Tyr) #
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             C; Accession: A35672
R; Tepass, U.; Theres, C.; Knust, E.
Call 61, 787-799, 1990
A; Title: crumbs encodes an EGF-like protein expressed on apical membranes of Drosophila A; Reference number: A35672; MUID:90263104; PMID:2344615
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        16;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            64 GGSYKCFCKGGYYGYNCNLK----NACKPNQCKNKSRCVPVGKTFK------CVCRN 110
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         97 AGRGRIS----CTIANRCHEGGQSYKIGDTWRRPHETGGYMLECVCLGNGKGE----WTC 148
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                111 GNFGRLCEKNVCS-PNPCKNNGKCSPLGKT-----GY--KCTCSGGYTGPRCEVHAC 159
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   KPIAEKCFDHAAGTSYVVGETWEKPYQGWMWVDCTCLGEGSGRITCTSR----NRCNDQD 204
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TRISYRIGDIWSKKDNRGNLLQCICTGNGRGEWKCERHISVQT-----TSSGSGPP 255
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       : | | | : | | | : | | | : | | | : | | | | : | | | | : | | | | : | | | | : | | | | : | | | | : | | | | : | | | | : | | | | : | | | | : | | | | : | | | | : | | | | : | | | | : | | | | : | | | | : | | | | : | | | | : | | | | : | | | | : | | | | : | | | | : | | | : | | | : | | | : | | | : | | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | : | | : | : | : | | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | 
adhesive plaque protein Mgfp2 precursor - Mediterranean mussel
C;Species: Mytilus galloprovincialis (Mediterranean mussel)
C;Date: 27-Apr_1995 #sequence_revision 03-Oct-1995 #text_change 09-Jul-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         C.Species: Drosophila melanogaster
C.Date: 21-Sep-1990 #sequence_revision 18-Nov-1992 #text_change 09-Jul-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              40 GNVLVCTCYGGSRGFNCESKPEAEETCFDKYTGNTYR----VGDTYERPKDSMIWDCTCIG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           16 OSKPGCYDNGKHYOINQOWERTYLGNVLVCTCYGGSRGFNCE-----SKP-EAEETCF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              86;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        73;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DB 2; Length 473;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8.1%; Score 121; DB 2; Length 2139; 3.1%; Pred. No. 0.15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match

8.6%; Score 128.5; DB 2; Length
Best Local Similarity 25.1%; Pred. No. 0.0096;
Matches 60; Conservative 21; Mismatches 85; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              88; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           crumbs protein - fruit fly (Drosophila melanogaster)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              22; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               23.1%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local Similarity
Matches 59; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | :: : [|
206 TCSADKFGD-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             149
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        205
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  à
```

	RESULT 14 T15099 hypothetical protein W03F8.5 - Caenorhabditis elegans C;Species: Caenorhabditis elegans C;Species: Caenorhabditis elegans C;Species: Caenorhabditis elegans C;Species: Caenorhabditis elegans C;Accession: T15099 R;Johnson, D.; Bradshaw, H.; Keppler, D. submitted to the EMBL Data Library, December 1997 A;Description: The sequence of C. elegans cosmid W03F8. A;Accession: T15099 A;Reference number: Z18293 A;Accession: T15099 A;Reference number: Z18293 A;Accession: T15099 A;Accession: T1509 A;Accession: T15099	Query Match         7.7%; Score 115; DB 2; Length 1808;           Best Local Similarity         20.9%; Pred. No. 0.38;           Matches         62; Conservative         26; Mismatches         107; Indels 102; Gaps 14;           QY         8 PQSPVAVSQSKPGCYDNGKHYQINQWERTYLGNVLVCTCYGGSRGFNCESKPEAEET         65           PGGPTSGYQHADTCYLRNSGNNTQDIVCNCKSGYQGERCGE	RESULT 15  MAPPED  Idminin beta-1 chain precursor - fruit fly (Drosophila melanogaster)  N.Alternate names: laminin chain B1 C,Species: Drosophila melanogaster C,Species: 30-Jun-1991 #sequence revision 30-Jun-1991 #text_change 09-Jul-2004 C,Accession: A28783; S14462; B28783 R;Montell, D.J.; Goodman, C.S. Cell 53, 463-473, 1988
F;316-342/Domain: EGF homology <egf> F;592-673/Domain: fibronectin type III repeat homology <fn3a> F;681-765/Domain: fibronectin type III repeat homology <fn3b> F;773-857/Domain: fibronectin type III repeat homology <fn3c> F;865-949/Domain: fibronectin type III repeat homology <fn3c> F;965-949/Domain: fibronectin type III repeat homology <fn3b> F;1046-1128/Domain: fibronectin type III repeat homology <fn3f> F;1137-1219/Domain: fibronectin type III repeat homology <fn3g> F;128-1310/Domain: fibronectin type III repeat homology <fn3j> F;137-1219/Domain: fibronectin type III repeat homology <fn3j> F;1407-1487/Domain: fibronectin type III repeat homology <fn3s> F;1407-1487/Domain: fibrinogen beta/gamma homology <fn3s></fn3s></fn3s></fn3j></fn3j></fn3j></fn3j></fn3j></fn3j></fn3j></fn3g></fn3f></fn3b></fn3c></fn3c></fn3b></fn3a></egf>	Query Match         7.9%; Score 118.5; DB 1; Length 1810;           Best Local Similarity 23.1%; Pred. No. 0.2;         10. 0.2;           Matches 74; Conservative 24; Mismatches 107; Indels 115; Gaps 22;           Qy         8 PQSPVANSQSKPGCYDNGKHYQINQOWERTYLGNVLVCTCYGGSRGFNCESKPEAEET 65           Db         148 PNSQTABGRLDTAPYCSGHGNYSTEIGCYCEPGWKGPNC-SERGCPN 195           Qy         66 CFDKYTGNTYRVGDTYKERPKDSMIWDCTCIGAGGG 100           Db         196 CLNRGLCYRAKCICEEGFTGEDCSQARCPSDCNDQGKCVDGVCVCFEGYTGPDCGEE 252           Qy         101RISCTIANRCHEGGQSYKIGDTWRRPHETGGYM-LBCVCLG 140           Db         253 LCPHGCGIHGRCVGGRCVCHEGFTGEDCNBCPLCPNNCHNRGRCVDBGYTG 308           Qy         141 NGKGEWTCKPIAEKCPDHAAGTSYVVGETWEKPYQGWMWNDCTCLGEGSGRI 192           Pb         309 EDCGELICPNDCFDRGRCINGTCFCEGGYTGEDCGELTCPNNCNGRCENG 360           Qy         193	Qy 226QCICTGNGRGEWKC 239	Query Match  7.8%; Score 116.5; DB 2; Length 1584; Best Local Similarity 21.8%; Pred. No. 0.26; Matches 61; Conservative 21; Mismatches 123; Indels 75; Gaps 17; Qy 5 MVQPQSPVAVSQSRPGCYDNGKHYQINQQMERTYLGNVLVCTCYGGSRGFNCE 57 Db 1058 MVPAQPKTCVESSDCHING-HCVINEHGAGEYICQCLPGFSGDGFINCRGADQ 1109  Qy 58 SKPEABETCPDKYTGNTYRVGDTYBRRPKDSMIWDCTCIGAGRGRISCTIA 107

completed: September 30, 2005, 13:31:49 ne : 42.4373 secs

Search cor Job time

1013 ACLKCLYQTT 1022

셤

```
믕
                                                                                                                  A; Molecule type: mRNA
A; Residues: 1-1790 <MON1>
A; Cross-references: UNIPPOT: P11046; EMBL:M19525
R; Montell, D.J.; Goodman, C.S.
submitted to the EMBL Data Library, June 1988
A; Description: Drosophila substrate adhesion molecule: sequence of laminin B1 chain reve
A; Reference number: $14462
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Description: interact with cells and with other basement membrane proteins to promote superfamily: laminin beta-1 chain; laminin-type EGF-like homology it.26/Domain: sament membrane; calcium binding; cell binding; coiled coil; extracellular i.26/Domain: signal sequence #status predicted <sig.>
27-1790/Product: laminin beta-1 chain #status predicted <WAT>
288/Domain: VI <DOMS>
289-561/Domain: V <DOMS>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            F:51-56/Disulfide bonds: #status predicted
F:140,203,234,489,593,1053,1248,1303,1332,1343,1475,1495,1517,1583,1646,1705/Binding sit
F:1191,1194,1788/Disulfide bonds: interchain #status predicted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A;Cross-references: FlyBase:FBgn0002527
A;Map position: 2L 28D
C;Complex: Laminins are trimers of an alpha-type, a beta-type, and a gamma-type laminin
:Title: Drosophila substrate adhesion molecule: sequence of laminin B1 chain reveals :Reference number: A28783; MUID:88210471; PMID:3365769
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            959 NMLCHCQEGYSGSRCEICADNFFGNPDNGGTCSKCECSNNVDLYDTGN-----CDRQTG 1012
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       --RGRISC---TIANRCHEGGQSYKIGDTWRRPHETGGYMLEC-VCLGNGKGEWTCKPIA 152
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          853 LITGQCQCVPNTYGRECNQCQPGY-----WNFP------ECRVCQCNGHAA-TCDPIQ 898
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    153 EKCFDHAAGTSYVVGETWEKPYQGWMMV------DCTC-----LGEGSGRITCTSRN 198
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    199 R--CNDQD----TRTSYRIGDTWSKKDNRGNLLQCIC-----TGNGRGEWKCERHTS 244
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           98
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      44 VCTCYGGSRGFNCESKPEAEETCFDKYTGNTYRVGDTYERPKDSMIWDCTCIGAG----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              802 VCESNGG----YCQCKPNVVGRQCDQCAPGTYGFG----PEGCKACDCNSIGSKDKYCD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                899 GTĆIDCQDSTTGYSCDSCLDGYYGNPLFGSEIGCRPCRCPETVASGLAHADGCSLDTRNN
                                                                                                                                                                                                                                                                                                                                                                                                                                           A;Molecule type: mRNA
A;Residues: 1-667,'L',669-725,'VT',728-947,950-1790 <MON2>
A;Cross_references: EMBL:M19525; NID:g157801; PIDN:AAA28663.1; PID:g157802
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      97; Indels 74; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     290-354/Domain: laminin-type EGF-like homology <LEO1>
357-417/Domain: laminin-type EGF-like homology <LEO2>
420-477/Domain: laminin-type EGF-like homology <LEO3>
480-528/Domain: laminin-type EGF-like homology <LEO4>
531-561/Domain: laminin-type EGF-like homology <LEO4>
552-789/Domain: laminin-type EGF-like homology #status atypical <LEO5>
562-789/Domain: IV <DOM4>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match 7.6%; Score 114; DB 1; Length 1790; Best Local Similarity 24.4%; Pred. No. 0.45; Matches 61; Conservative 18; Mismatches 97; Indels 7.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              F;643-645/Region: cell attachment (R-G-D) motif
F;791-189/Domain: Ill cDM3>
F;791-189/Domain: laminin-type EGF-like homology cLE06>
F;839-882/Domain: laminin-type EGF-like homology cLE07>
F;839-882/Domain: laminin-type EGF-like homology cLE08>
F;885-932/Domain: laminin-type EGF-like homology cLE08>
F;935-1042/Domain: laminin-type EGF-like homology cLE08>
F;968-972/Region: cell adhesion #status predicted
F;931-1042/Domain: laminin-type EGF-like homology cLE10>
F;1095-1093/Domain: laminin-type EGF-like homology cLE11>
F;1096-1141/Domain: laminin-type EGF-like homology cLE12>
F;1140-1401/Domain: laminin-type EGF-like homology cLE13>
F;1408-1434/Domain: alpha cALP>
F;1408-1434/Domain: alpha cALP>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             245 V-----QTT 248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       66
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A;Gene: lamB1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
```

This Page Blank (uspto)

```
CURRENT APPLICATION DATA:
APPLICATION DATA:
APPLICATION NUMBER: US/08/153,799
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          STREET: 100 Mountain Avenue CITY: Murray Hill SYATE: New Jersey CITY: New Jersey CITY: New Jersey CITY: New Jersey CITY: O'SA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08 07/847975
FILING DATE: 06-MAR-1992
PRIOR APPLICATION NUMBER: 08 890916.2
PRIOR APPLICATION NUMBER: 08 890916.2
PRIOR APPLICATION NUMBER: PCT/GB90/00650
PRIOR APPLICATION NUMBER: PCT/GB90/00650
PRIOR APPLICATION NUMBER: 180
PRIOR DATE: 26-APR-1990
PRIOR DATE: 26-APR-1990
PRIOR DATE: 220-CT-1991
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ZIP: 07974

COMPUTER REALABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NAME: Swope, R Hain
REGISTRATION NUMBER: 24864
REFERENCE/DOCKET NUMBER: 92H832
TELECOMMUNICATION INFORMATION:
TELEPHONE: (908) 665 2400
TELEFAX: (908) 771 6159
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GENERAL INFORMATION:
APPLICANT: Ballance, David J
APPLICANT: Goodey, Andrew R
TITLE OF INVENTION: Polypeptides
NUMBER OF SEQUENCES: 23
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 16, Application US/08153799
Patent No. 5766883
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TELEX: 219484
INFORMATION FOR SEQ ID NO: 16:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                : 2231 amino acids
amino acid
                                                                                                                                                                                                  2556
2556
2556
2556
1248
1248
1810
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TYPE: ami:
TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 1
US-08-153-799-16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 16, Appli
Sequence 1, Appli
Sequence 12, Appli
Sequence 2, Appli
Sequence 2, Appli
Sequence 1, Appli
Bequence 1, Appli
Patent No. 5455158
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Appli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Appli
                                                                                                                                        (without alignments)
580.396 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                     September 30, 2005, 08:57:15 ; Search time 33.6978 Seconds
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 10
Sequence 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 9,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Description
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 1
Sequence 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 6
Sequence 1
Sequence 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 1
Sequence 6
Sequence 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 2
Sequence 7
Sequence 1
                                                                                                                                                                                                                                           QAQQMVQPQSPVAVSQSKPG........TSVQTTSSGSGPFTDVRAAV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /cgn2_6/ptodata/1/iaa/5A_COMB.pep:*
/cgn2_6/ptodata/1/iaa/5B_COMB.pep:*
/cgn2_6/ptodata/1/iaa/6A_COMB.pep:*
/cgn2_6/ptodata/1/iaa/6B_COMB.pep:*
/cgn2_6/ptodata/1/iaa/PPTUS_COMB.pep:*
/cgn2_6/ptodata/1/iaa/PCTUS_COMB.pep:*
GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          5455158-1

US-08-836-854-12

US-08-836-854-12

US-08-14-449B-14

US-08-611-729A-10

US-08-611-729A-10

US-08-611-729A-10

US-09-856-047-7

US-09-56-047-7

US-09-59-536-18

US-09-59-536-18

US-09-59-856-18

US-09-19-855-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-09-016-366A-12
US-08-551-356-2
PCT-US93-12687-2
US-09-961-403-1
                                                                                                                                                                                                                                                                                                                                                                                   Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-09-214-278-7
US-09-068-740A-11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-08-153-799-16
US-08-283-857-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               .08-611-729A-6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PCT-US95-09819-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    .08-882-046-2
                                                                                                                                                                                                                                                                                                                                               513545 seqs, 74649064 residues
                                                                                                                                                                                                  US-09-492-971B-15_COPY_4_265
1499
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                            OM protein - protein search, using sw model
                                                                                                                                                                                                                                                                                 BLOSUM62
Gapop 10.0 , Gapext 0.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Issued_Patents_AA:*
                                                                                                                                                                                                                                                                                                                                                                                                                              Minimum DB seq length: 0
Maximum DB seq length: 200000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    23324
2233324
23334466
2333846666
2333846666
1010101
1010100101003
10101003
10101003
10101003
10101003
10101003
10101003
10101003
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010103
1010
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            100.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             100.0
                                                                                                                                                                                                                       Perfect score:
                                                                                                                                                                                                                                                                                     Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1495
1494
1494
295.5
295
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1499
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1499
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1499
                                                                                                                                                                                                                                               Sequence:
                                                                                                                                                                                                                                                                                                                                               Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Database
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (co
                                                                                                                     Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Result
```

```
85, Appl
6, Appli
1, Appli
5902, Ap
10297, A
5, Appli
                                                                                                                                                                               Appli
Appli
Appl
Appli
Appli
Appli
Appli
Appli
Appli
                                           Sequence 8
Sequence 6
Sequence 1
Sequence 5
                                                                                                                               Sequence Seq
                                                                                                                                                                                                                                                                          Sequence
Sequence
                                                                                                                                                                                                                                                                                                                                              Sequence S
                                                                                                                                                                                                                                                                                                                                                                                           Sequence
                                                                                                                                                                                                                                                                                                                        Sequence
                                                                                                         US-09-949-016-5902
US-08-949-016-10297
US-08-982-046-5
US-09-566-047-5
US-09-136-218-20
US-09-136-218-20
                                                                                                                                                                                                                                                                                                                                         US-09-566-047-6
US-08-793-273C-4
PCT-US95-11684-4
                        -09-566-047-2
-09-917-254-85
                                                                   US-09-195-524-6
                                                                                                                                                                                                                                                                                             US-09-121-457-2
US-08-882-046-6
                                                                                                                                                                                                                                                                          US-08-899-232-2
1218
1218
1218
1218
1218
1218
1254
1219
```

## ALIGNMENTS

9

엄

à

g

8

셤

ð

ò

```
61 EAEFTCFDKYTGNTYRVGDTYERPKDSMIWDCTCICAGRGRISCTIANRCHEGGQSYKIG 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                     61 EAEETCFDKYTGNTYRVGDTYERPKDSMIMDCTCIGAGRGRISCTIANRCHEGGGSYKIG 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DCTCLGEGSGRITCTSRNRCNDQDTRTSYRIGDTWSKKDNRGNLLQCICTGNGRGEWKCE 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            181 DCTCLGEGSGRITCTSRNRCNDQDTRTSYRIGDTWSKKDNRGNLLQCICTGNGRGEWKCE 240
                                                                                                                                                                                                                                                                                                                                                              1 QAQQWVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYGGSRGFNCESKP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DTWRRPHETGGYMLECVCLGNGKGEWTCKPIAEKCFDHAAGTSYVVGETWEKPYQGWMVV
                                                                                                                                                                                                                                                                                                                                  1 QAQQMYQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYGGSRGFNCESKP
                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                  100.0%; Score 1499; DB 1; Length 2324; 100.0%; Pred. No. 2e-136; Cive 0; Mismatches 0; Indels 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FIBRONECTIN FIBRIN-BINDING PEFTIDES, DNA CODING THEREFOR AND USES THEREOF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COMPUTER READBLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30 (EPO)
ROTRENT APPLICATION DATA:
APPLICATION NUMBER: PCT/US95/09819
FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AUDRESS:
AUDRESS:
AUDRESS:
STREET: 419 Seventh Street, N.W., Suite 300
CITY: Washington
STATE: D.C.
COUNTRY: USA
ZIP: COMPTEN: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GOLD=1A PCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/283,857
FILING DATE: 01-AUG-1994
ATTORNEY/AGENT INFORMATION:
NAME: BROWNY, ROGER I.
REGISTRATION NUMBER: 25,618
REFERENCE/DOCKET NUMBER: GOLD-1A PCTELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
TELEPHONE: 202-628-5197
TELEFRAX: 202-737-3528
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  241 RHTSVQTTSSGSGPFTDVRAAV 262
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           241 RHTSVQTTSSGSGPFTDVRAAV 262
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 1, Application PC/TUS9509819 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TELEFAX: 202-737-3528
TELEX: 248633
INFORMATION FOR SEQ ID NO: 1: SEGUIENCE CHARACTERISTICS: LENGTH: 2324 amino acids
                                                                   LENGTH: 2324 amino acids
                                                                                                                                                                                                                                                          Best Local Similarity 100.0
Matches 262; Conservative
                 INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS
202-737-3528
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TITLE OF INVENTION: FIB
TITLE OF INVENTION: COD
NUMBER OF SEQUENCES: 6
CORRESPONDENCE ADDRESS:
ADDRESSEE: BROWDY AND
                                                                                                          STRANDEDNESS: single
TOPOLOGY: linear
MOLECULE TYPE: peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TYPE: amino acid
                                                                                           TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 3
PCT-US95-09819-1
                                                                                                                                                                                     US-08-283-857-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      181
                                                                                                                                                                                                                                    Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DTWRRPHETGGYMLECVCLGNGKGEWTCKPIAEKCFDHAAGTSYVVGETWEKPYQGWMYV 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DCTCLGEGSGRITCTSRNRCNDQDTRTSYRIGDTWSKKDNRGNLLQCICTGNGRGEWKCE 240
                                                                                                                                                                                                                                                                                                                                                                                                                              61 EAEETCFDKYTGNTYRVGDTYERPKDSMIWDCTCIGAGRGRISCTIANRCHEGGQSYKIG 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                       EAEETCFDKYTGNTYRVGDTYERPKDSMIMDCTCIGAGRGRISCTIANRCHEGGGSYKIG 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DTWRRPHETGGYMLECVCLGNGKGEWTCKPIAEKCFDHAAGTSYVVGETWEKPYQGWMMV 180
                                                                                                                                                                                                                                                                                                                                                              1 QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQMERTYLGNVLVCTCYGGSRGFNCESKP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DCTCLGEGSGRITCTSRNRCNDQDTRTSYRIGDTWSKKDNRGNLLQCICTGNGRGEWKCE
                                                                                                                                                                                                                                                                                                                                  1 QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYGGSRGFNCESKP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: GOLD, Leslie I.
APPLICANT: ROSTAGNO, Agueda A.
APPLICANT: BARON, Martin
APPLICANT: BARON, Martin
APPLICANT: GAMPBELL, Tain D.
APPLICANT: WILLIAMS, Michael, J.
TITLE OF INVENTION: FIBRONECTIN FIBRIN-BINDING PEPTIDES, DNA
TITLE OF INVENTION: CODING THEREFOR AND USERS THEREOF
NUMBER OF SEQUENCES: 10
CORRESPONDENCE ADDRESS:
ADDRESSE: BROWDY AND NEIMARK
STREET: 419 Seventh Street, N.W., Suite 300
                                                                                                                                                                                                                                                                                 ;
                                                                                                                                                                                                                                      Length 2231;
                                                                                                                                                                                                                                                                                 Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/283,857
FILING DATE: 01-AUG-1994
CLASSIFICATION 1435
PRICK APPLICATION NUMBER: US 07/714,134
FILING APPLICATION NUMBER: US 07/714,134
FILING APPLICATION NUMBER: US 07/714,134
FILING DATE: 14-UNN-1991
ATTOMENY AGENT INFORMATION:
                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                  100.0%; Score 1499; DB 1;
100.0%; Pred. No. 1.9e-136;
cive 0; Mismatches 0;
                                                                                                             NAME/KEY: Protein
LOCATION: 1..2231
OTHER INFORMATION: /note= "Human fibronectin"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GOLD=1A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RHTSVQTTSSGSGPFTDVRAAV 262
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           241 RHTSVQTTSSGSGPFTDVRAAV 262
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 2
US-08-283-857-1
Sequence 1, Application US/08283857
Patent No. 5792742
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NAME: BROWDY, ROGER L. REGISTRATION NUMBER: 25,618
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         REFERENCE/DOCKET NUMBER: GO FELECOMMUNICATION: TELEPHONE: 202-628-5197
                                                                ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                        Best Local Similarity 100.
Matches 262; Conservative
protein
NO
                 HYPOTHETICAL: NO ORIGINAL SOURCE:
MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            20004
                                                                                                                                                                                     US-08-153-799-16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    241
                                                                                                                                                                                                                                      Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          121
```

```
181 DCTCLGEGSGRITCTSRNRCNDQDTRTSYRIGDTWSKKDNRGNLLQCICTGNGRGEWKCE 240
                                                                                                                                                                                                                                   BABETCFDKYTGNTYRVGDTYERPKDSMIWDCTCIGAGRGRISCTIANRCHEGGQSYKIG 120
                                                                                                                                                                                                                                                            92 BABETCFDKYTGNTYRVGDTYERPKDSMIMDCTCIGAGRGRISCTIANRCHEGGGSYKIG 151
                                                                                                                                                                                                                                                                                                                       DTWRRPHETGGYMLECVCLGNGKGEWTCKPIAEKCFDHAAGTSYVVGETWEKPYQGWMMV 180
                                                                                                                                                                                                                                                                                                                                                                                                                                       DCTCLGEGSGRITCTSRNRCNDQDTRISYRIGDTWSKKDNRGNLLQCICTGNGRGEWKCE 271
                                                                                                                                                                    32 QAQQMYQPQSPVAVSQSKPGCYDNGKHYQINQQMERTYLGNVLVCTCYGGSRGFNCESKP 91
                                                                                                                                                                                                                                                                                                                                                  DTWRRPHETGGYMLECVCLGNGKGEWTCKP1AEKCFDHAAGTSYVVGETWEKPYQGWMWV
                                                                                                                                                  1 QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYGGSRGFNCESKP
                                                                                                         Gaps
                                                                                                         .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DB 2; Length 2446;
                                                               Length 2386;
                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/551,356
FILING DATE:
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US/08/349,762
FILING DATE:
APPLICATION NUMBER: US/07/998,271
FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 2, Application US/08551356
Patent No. 5830700
GENERAL INFORMATION:
APPLICANT: Irani, Meher
TITLE OF INVENTION: HYBRID CROSS-LINKING PROTEINS
TUMBER OF SEQUENCES: 14
CORRESPONDENCE ADDRESS:
                                                               Query Match 100.0%; Score 1499; DB 2; Best Local Similarity 100.0%; Pred. No. 2e-136; Matches 262; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               100.0%; Score 1499;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  241 RHTSVQTTSSGSGPFTDVRAAV 262
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STATE: WA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RHTSVQTTSSGSGPFTDVRAAV 293
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TELEFHONE: 206-547-8080 ext 322
TELEFAX: 206-548-2329
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ATTORNEY/AGENT INFORMATION:
NAME: Holly, Julie A
REGISTRATION NUMBER: 33-246
REFERENCE/DOCKET NUMBER: 92-26
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2446 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TELEFAX: 206-548-2329
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
, MOLECULE TYPE: protein US-09-016-366A-12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MOLECULE TYPE: protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 98105
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-08-551-356-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              JS-08-551-356-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LENGTH:
                                                                                                                                                                                                                                     61
                                                                                                                                                                                                                                                                                                                         121
                                                                                                                                                                                                                                                                                                                                                                    152
                                                                                                                                                                                                                                                                                                                                                                                                                                                     212
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           272
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                    ઠે
                                                                                                                                                                                      셤
                                                                                                                                                                                                                                     ð
                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           유
                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                         61 EAEETCFDKYTGNTYRVGDTYERPKDSMIWDCTCIGAGRGRISCTIANRCHEGGGSYKIG 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                       DCTCLGEGSGRITCTSRNRCNDQDTRTSYRIGDTWSKKDNRGNLLQCICTGNGRGEWKCE 240
                                                                                                                                                                                                                                                                                61 EAEETCFDKYTGNTYRVGDTYERPKDSMIWDCTCIGAGRGRISCTIANRCHEGGQSYKIG 120
                                                                                                                                                                                                                                                                                                                                                                    DTWRRPHETGGYMLECVCLGNGKGEWTCKPIAEKCFDHAAGTSYVVGETWEKPYQGWMMV 180
                                                                                                                                                                                                                                                                                                                                                                                                            121 DTWRRPHETGGYMLECVCLGNGKGEWTCKPIAEKCFDHAAGTSYVVGETWEKPYQGWMVV 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  181 DCTCLGEGSGRITCTSRNRCNDQDTRTSYRIGDTWSKKDNRGNLLQCICTGNGRGEWKCE 240
                                                                                                                                                                                           1 QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYYLGNVLVCTCYGGSRGFNCESKP 60
                                                                                                                                                                                                                      1 QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYGGSRGFNCESKP 60
                                                                                                     Query Match 100.0%; Score 1499; DB 5; Length 2324; Best Local Similarity 100.0%; Pred. No. 2e-136; Matches 262; Conservative 0; Mismatches 0; Indels 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT: Stevens, Richard L.
APPLICANT: Stevens, Chifu
TITLE OF INVENTION: MAST CELL PROTEASE PEPTIDE
TITLE OF INVENTION: INVIBITORS
NUMBER OF SEQUENCES: 65
CORRESPONDENCE ADDRESS:
ADDRESSEE: Wolf, Greenfield & Sacks, P.C.
STREET: 600 Atlantic Avenue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COMPUTER READBLE FORM:
MEDIUM TYPE: Diskette
COMPUTER: IBM Compatible
OPERATING SYSTEM: DOS
SOFTWARE: FastSED for Windows Version 2.0
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/016,366A
FILING DATE: US/09/016,366A
FILING DATE: 00/037,090
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 60/037,090
FILING DATE: 05-FEB-1997
ATTORNEY/AGENT INFORMATION:
NAME: Bliabbeth R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     REGISTRATION NUMBER: 36,637
REFERENCE/DOCKET NUMBER: B0801/7093
TELECOMMINICATION:
TELEPHONE: 617-720-3500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RHTSVQTTSSGSGPFTDVRAAV 262
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     241 RHTSVQTTSSGSGPFTDVRAAV 262
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-09-016-366A-12; Sequence 12, Application US/09016366A; Patent No. 5955431; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   INFORMATION FOR SEQ ID NO: 12
SEQUENCE CHARACTERISTICS:
LENGTH: 2386 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TELEFAX: 617-720-2441
    single
                    TOPOLOGY: linear
MOLECULE TYPE: peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TYPE: amino acid
STRANDEDNESS: sir
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COUNTRY: U.S.A. ZIP: 02210-2211
  STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              STATE: MA
                                                               PCT-US95-09819-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             241
                                                                                                                                                                                                                                                                                                                                                                                                                                                         181
                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 9
```

240

151 180

```
152 DIWRRPHETGGYMLECVCLGNGKGEWTCKPIAEKCFDHAAGTSYVVGETWEKPYQGWMWV 211
EAEETCFDKYTGNTYRVGDTYERPKDSMIWDCTCIGAGRGRISCTIANRCHEGGQSYKIG 120
                                                                                                                                                                                            212 DCTCLGEGSGRITCTSRNRCNDQDTRTSYRIGDTWSKKDNRGNLLQCICTGNGRGEWKCE 271
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                61 BAEETCFDKYTGNTYRVGDTYERPKDSMIWDCTCIGAGRGRISCTIANRCHEGGQSYKIG 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        92 EAEETCFDKYTGNTYRVGDTYERPKDSMIWDCTCIGAGRGRISCTIANRCHEGGGSYKIG 151
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      121 DIWRRPHEIGGYMLECVCLGNGKGEWICKPIAEKCFDHAAGISYVVGEIWEKPYQGWMMV 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        181 DCTCLGEGSGRITCTSRNRCNDQDTRTSYRIGDTWSKKDNRGNLLQCICTGNGRGEWKCE 240
                      92 BAEETCFDKYTGNTYRVGDTYERPKDSMIWDCTCIGAGRGRISCTIANRCHEGGQSYKIG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              212 DCTCLGEGSGRITCTSRNRCNDQDTRTSYRIGDTWSKKDNRGNLLQCICTGNGRGEWKCE
                                                                                 DTWRRPHETGGYMLECVCLGNGKGEWTCKPIAEKCFDHAAGTSYVVGETWEKPYQGWMWV
                                                                                                        152 DTWRRPHETGGYMLECVCLGNGKGEWTCKPIAEKCPDHAAGTSYVVGETWEKPYQGWMMV
                                                                                                                                                                   191 DCTCLGEGSGRITCTSRNRCNDQDTRTSYRIGDTWSKKDNRGNLLQCICTGNGRGEWKCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          32 QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNALVCTCYGGSRGFNCESKP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYGGSRGFNCESKP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: HAENDER, BERNARD
APPLICANT: KRAETZSCHMAR, JOERN
APPLICANT: KRAETZSCHMAR, JOERN
APPLICANT: KRAETZSCHMAR, JOERN
APPLICANT: WINTERHAGER, ELKE
APPLICANT: REGIDOR, PEDRO
APPLICANT: SCOTTI, SIMONE
TITLE OF INVENTION: METHOD FOR IN VITRO DIAGNOSIS OF ENDOMETRIOSIS
FILE REFERENCE: SCH-1789
CURRENT APPLICATION NUMBER: US/09/961,403
CURRENT PILING DATE: 2001-09-25
NUMBER OF SEQ ID NOS: 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 1495; DB 4; Length 2386;
Pred. No. 5e-136;
0; Mismatches 1; Indels 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Patent No. 5455158
; APPLICANT: VOCEL, TIKVA; LEVANON, AVIGDOR; WERBER, MOSHE M.; GUY, RACHEL; PANET, AMOS
; GUY, RACHEL; PANET, AMOS
; TITLE OF INVENTION: FIBRIN BINDING DOMAIN POLYPEPTIDES AND ; JUSES AND METHODS OF PRODUCING SAME
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     272 RHTSVQTTSSGSGPFTDVRAAV 293
                                                                                                                                                                                                                                                        241 RHTSVQTTSSGSGPFTDVRAAV 262
                                                                                                                                                                                                                                                                                272 RHTSVQTTSSGSGPFTDVRAAV 293
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            241 RHTSVQTTSSGSGPFTDVRAAV 262
                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 1, Application US/09961403
Patent No. 6780594
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local Similarity 99.6%;
Matches 261; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                  GENERAL INFORMATION:
APPLICANT: HE-STUMPP, HOLGER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SOFTWARE: Patentin Ver. 2.1
SEQ ID NO 1
LENGTH: 2386
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                RESULT 7
US-09-961-403-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-09-961-403-1
                                                                                 121
    61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 8
5455158-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            à
                                                                                                                       셤
                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                        ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                 셤
                                                                                 à
                                                                                                                                                                   ò
                                                                                                                                                  120
                                                                                                                                                                                                                                      180
                                                                                                                                                                                                                                                          DTWRRPHETGGYMLECVCLGNGKGEWTCKPIAEKCFDHAAGTSYVVGETWEKPYQGWMV 211
                                                                                                                                                                                                                                                                                                                      240
                                                                                                                                                                                                                                                                                                                                              DCTCLGEGSGRITCTSRNRCNDQDTRISYRIGDTWSKKDNRGNLLQCICTGNGRGEWKCE 271
                                                                                                                                                                          EAEETCFDKYTGNTYRVGDTYERPKDSMIWDCTCIGAGRGRISCTIANRCHEGGGSYKIG 151
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        91
                                                                09
                                                                                                     91
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYGGSRGFNCESKP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYGGSRGFNCESKP
                                                                                                                                                  EAEETCFDKYTGNTYRVGDTYERPKDSMIWDCTCIGAGRGRISCTIANRCHEGGQSYKIG
                                                                                                                                                                                                                                    DTWRRPHETGGYMLECVCLGNGKGEWTCKPIAEKCFDHAAGTSYVVGETWEKPYQGIMMV
                                                                                                                                                                                                                                                                                                                      DCTCLGEGSGRITCTSRNRCNDQDTRTSYRIGDTWSKKDNRGNLLQCICTGNGRGEWKCE
                                                                                                     QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYGGSRGFNCESKP
                                                                QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYGGSRGFNCESKP
                      Gaps
                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              100.0%; Score 1499; DB 5; Length 2446; 100.0%; Pred. No. 2.1e-136; ive 0; Mismatches 0; Indels 0;
                      Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: Irani, Meher H.
TITLE OF INVENTION: HYBRID CROSS-LINKING PROTEINS
NUMBER OF SEQUENCES: 14
CORRESPONDENCE ADDRESS:
ADDRESSEE: ZymoGenetics, Inc.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: PCT/US93/12687
FILING DATE:
CLASSIFICATION:
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/998,271
FILING DATE: 31-DEC-1992
ATTORNEY/AGENT INFORMATION:
  100.0%; Pred. No. 2.1e-136; ive 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NAME: Parker,
NAME: Parker,
REGISTRATION NUMBER: 31-648
REGISTRATION NUMBER: 92-26PC
REBRENCE/STOCKER: 92-26PC
TELECOMMUNICATION INFORMATION:
TELEPHONE: 206-547-8080 ext 322
                                                                                                                                                                                                                                                                                                                                                                                                          RHTSVQTTSSGSGPFTDVRAAV 262
                                                                                                                                                                                                                                                                                                                                                                                                                                     E: ZymoGenetics, Inc.
4225 Roosevelt Way, N.E.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 2, Application PC/TUS9312687
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2446 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TELEFAX: 206-548-2329
INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS: LENGTH: 2446 amino acid
                   262; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MOLECULE TYPE: protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ZIP: 98105
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Similarity
  Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CITY: Seattle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        262;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STATE: WA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PCT-US93-12687-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PCT-US93-12687-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STREET:
                                                                                                                                                                                       92
                                                                                                                                                                                                                                                                                                                                                                                                          241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             32
                                                                                                        32
                                                                                                                                                    61
                                                                                                                                                                                                                                    121
                                                                                                                                                                                                                                                                              152
                                                                                                                                                                                                                                                                                                                      181
                                                                                                                                                                                                                                                                                                                                                                212
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Best Local 8
Matches 263
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
  Best Local
Matches 26
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                     셤
                                                                                                                                                                                 q
                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                       d
                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                  ઠે
                                                                                                                                                                                                                                  Š
                                                                                                                                                                                                                                                                                                                    δ
```

ö

Gaps

..

09 91 271

```
181 DCTCLGEGSGRITCTSRNRCNDQDTRTSYRIGDTWSKKDNRGNLLQCICTGNGRGEWKCE 240
                                                                                                                                     DCTCLGEGSGRITCTSRNRCNDQDTRTSYRIGDTWSKKDNRGNLLQCICTGNGRGEWKCE 243
                                                       DTWRRPHEIGGYMLECVCLGNGKGEWICKPIAEKCFDHAAGTPYVVGETWEKPYQGWMVV 183
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   269 ISINYRTEIDKPSQNEGLNQPTDDSCFDPYTVSHYAVGDEWERMSESGFKLL--CQCLGF 326
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ---EAEETCFDKYTGNTYRVGDTYERPKDS----MIWDCTCIGA 97
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3 QQMVQP--QSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYGGSRGFNCESKP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            227 QEFTVPGSKSTATISGLKPGV-----PASSKP
                                                                                                                                                                                                                                                                                                                                              Sequence 9, Application US/08836854
Patent No. 5824547
GENERAL INFORMATION
APPLICANT: HAGHINO, Kimikazu
APPLICANT: MATSUSHITA, Hideyuki
APPLICANT: KATO, Ikunoshin
TITUS OF INVENTION: METHOD OF PRODUCTION OF TRANSFECTED CELLS
NUMBER OF SEQUENCES: 21
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 474;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ZIP: 20004

COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
CURRENT APPLICATION NATA:
APPLICATION NUMBER: US/08/836,854
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 19.7%; Score 295.5; DB 2; 33.8%; Pred. No. 2.1e-20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        STREET: Browdy and Neimark
STREET: 419 Seventh Street N.W. Ste. 300
CITY: Washington
STATE: D.C.
COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              22; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FILING DATE:
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: PCT/JP95/02425
FILING DATE: 29-NOV-1995
RICH APPLICATION NUMBER: 317721/1994
FILING DATE: 29-NOV-1994
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   HASHINO=1
                                                                                                                                                                                                 241 RHTSVQTTSSGSGPFTDVRAAV 262
                                                                                                                                                                                                                        25,618
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NAME: Browdy, Roger L. REGISTRATION NUMBER: 25,618
REFERENCE/DOCKET NUMBER: HATELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (202) 628-5197
(202) 737-3528
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  474 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Local Similarity 33.8% tes 72; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TELEFAX: (202) 737-352
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MOLECULE TYPE: peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TELEPHONE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TOPOLOGY:
                                                                                                                                                                                                                                                                                                                              US-08-836-854-9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-08-836-854-9
                                                                     124
                                                                                                                                                     184
                                                                                                                                                                                                                                          244
                               121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Best Loc
Matches
                                                                                                                                              원
                                                                                                                                                                                                                                     셤
                               8
                                                              셤
                                                                                                        8
                                                                                                                                                                                               ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ð
                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   EAEETCFDKYTGNTYRVGDTYERPKDSMIWDCTCIGAGRGRISCTIANRCHEGGQSYKIG 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DIWRRPHETGGYMLECVCLGNGKGEWTCKPIAEKCFDHAAGTSYVVGETWEKPYQGWMVV 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DCTCLGEGSGRITCTSRNRCNDQDTRTSYRIGDTWSKKDNRGNLLQCICTGNGRGEWKCE 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   124 DTWRRPHETGGYMLECVCLGNGKGEWTCKPIAEKCFDHAAGTPYVVGETWEKPYQGWMMV 183
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           EAEETCFDKYTGNTYRVGDTYERPKDSMIWDCTCIGAGRGRISCTIANRCHEGGQSYKIG 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   EAEETCFDKYTGNTYRVGDTYERPKDSMIWDCTCIGAGRGRISCTIANRCHEGGGSYKIG 123
                                                                                                                                                                                                                                                                                                                                                                                                               1 QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYGGSRGFNCESKP 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                  QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQMERTYLGNVLVCTCYGGSRGFNCESKP 63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 QAQQMYQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYGGSRGFNCESKP 63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYGGSRGFNCESKP
                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRECENT NO. 5455158
; APPLICANT: VOGEL, TIKVA; LEVANON, AVIGDOR; WERBER, MOSHE M.; GUY, RACHEL; PANET, AMOS
; TITLE OF INVENTION: FIBRIN BINDING DOMAIN POLYPEPTIDES AND TITLE OF INVENTION: FIBRIN BINDING DOMAIN POLYPEPTIDES AND SUBSEAND METHODS OF PRODUCING SAME
; USES AND METHODS OF PRODUCING SAME
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/58,241
; FILING DATE: 21-MAY-1993
; APPLICATION NUMBER: 526,397
; FILING DATE: 21-MAY-1990
; APPLICATION NUMBER: 345,952
; FILING DATE: 29-DEC-1989
; APPLICATION NUMBER: 291,951
; FILING DATE: 29-DEC-1988
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ;
0
                                                                                                                                                                                                                                                                                                                          Score 1494; DB 6; Length 2327;
Pred. No. 6e-136;
0; Mismatches 1; Indels 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               99.7%; Score 1494; DB 6; Length 2327; 99.6%; Pred. No. 6e-136; ive 0; Mismatches 1; Indels 0
NUMBER OF SEQUENCES: 20
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/58,241
FILING DATE: 04-MAY-1993
RELOR APPLICATION DATA:
APPLICATION NUMBER: S26,397
FILING DATE: 21-MAY-1990
APPLICATION NUMBER: 345,952
FILING DATE: 28-APR-1999
APPLICATION NUMBER: 29-DEC-1988
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RHTSVOTTSSGSGPFTDVRAAV 265
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RHTSVQTTSSGSGPFTDVRAAV 262
                                                                                                                                                                                                                                                                                                                            99.7%;
                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity 99.6
Matches 261; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Best Local Similarity 99.6
Matches 261; Conservative
                                                                                                                                                                                                                                                              LENGTH: 2327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LENGTH: 2327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           64
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                184
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 64
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQ ID NO:1:
                                                                                                                                                                                                                                       SEQ ID NO:1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            5455158-1
;Patent No.
                                                                                                                                                                                                                                                                                5455158-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       5455158-1
```

d

d ò 임

셤 ò g

ò

셤 ò 셤

ò

ò

```
157 DHAAGTSYVVGETWEKPYQGWMMVDCTCLGEGSG 190
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    REFERENCE/DOCKET NUMBER: 1145358-304
TELECOMMUNICATION INFORMATION:
TELEPHONE: (212)-819-8582
TELEPA: (212) 354-8113
INFORMATION FOR SEQ ID NO: 14:
SEQUENCE CHARACTERISTICS:
LENGTH: 188 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             имыЕR: US/08/142,449B
24-NOV-1994
V: 77
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-08-400-159-10
; Sequence 10, Application US/084Q0159
; Patent No. 5869282
; GENERAL INPORMATION:
APPLICANT: Henrique, Domingos M.P.
                                                                                                          US-08-142-449B-14
; Sequence 14, Application US/08142449B
; Patent No. S668104
; GENERAL INFORMATION:
; APPLICANT: Nakahata, Tatsutoshi
; APPLICANT: Kawano, Genji
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NAME: Lippert, Nels T.
REGISTRATION NUMBER: 25,888
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      : 188 amino acids
amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              180 VDCTCLGEGSG 190
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   119 CSCTCFGGQRG 129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TOPOLOGY: linear
MOLECULE TYPE: protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FILING DATE: 24
CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-08-142-449B-14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              à
  ઠે
                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       265 ISINYRTEIDKPSMANEGLNQPTDDSCFDPYTVSHYAVGDEWERMSESGFKUL--CQCLG 322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             223 QEFTVPGSKSTATISGLKPGV------DYTITVYAVTGRGDS---PASSKP 264
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            97 AGRGRISCTIANRCHEGGQSYKIGDTWRRPHETGGYMLECVCLGNGKGEWTCKPIAEKCF 156
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GRGRISCTIANRCHEGGQSYKIGDTWRRPHETGGYMLECVCLGNGKGEWTCKPIAEKCFD 157
                        --EAEETCFDKYTGNTYRVGDTYERPKDS---MIWDCTCIG 96
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3 QQMVQP--QSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYGGSRGFNCESKP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             50;
                                                                                                                                                                                                                                                                         APPLICANT: HASHINO, Kimikazu
APPLICANT: MATSUSHITA, Hideyuki
APPLICANT: KATO, Ikunoshin
TITLE OF INVENTION: METHOD OF PRODUCTION OF TRANSFECTED CELLS
NUMBER OF SEQUENCES: 21
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    19.7%; Score 295; DB 2; Length 422; 33.6%; Pred. No. 2e-20; Live 22; Mismatches 70; Indels 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SOFTWARE: Patentin Release #1.0, Version #1.30 CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/836,854
                                                                                                    386 D--GKTYHVGEQWQKEYLG-AICSCTCFGGQRG 415
                                                                                                                                                                                                                                                                                                                                                                                                E: Browdy and Neimark
419 Seventh Street N.W. Ste. 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NAME: Browdy, Roger L.
REGISTRATION NUMBER: 25,618
REFERENCE/DOCKET NUMBER: HASHINO=1
TELEPHONE: (202) 628-5197
TELEPHONE: (202) 737-3528
INFORMATION FOR SEQ ID NO: 12:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION UNBER: CT/JP95/02425
FILING DATE: 29-NOV-1995
PRIOR APPLICATION DATA:
APPLICATION UNBER: 317721/1994
FILING DATE: 29-NOV-1994
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                             Sequence 12, Application US/08836854 Patent No. 5824547 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LENGTH: 422 amino acids
TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity 33.63
Matches 72; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MOLECULE TYPE: peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                                                                                                                                                       STREET: TO CITY: Washington STATE: D.C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                              ADDRESSEE:
STREET: 419
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 20004
                                                                                                                                                                              RESULT 11
US-08-836-854-12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 JS-08-836-854-12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                     임
                                                                              ઠ
                                                                                                                 g
```

```
120 GDTWRRPHETGGYMLECVCLGNGKGEWTCKPIAEKCFDHAAGTSYVVGETWEKPYQGWMM 179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                63 EETCFDKYTGNTYRVGDTYERPKDS---MIWDCTCIGAGRGRISCTIANRCHEGGQSYKI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S DDSCFDPYTVSHYAVGDEWERMSESGFKLL--CQCLGFGSGHFRCDSSRWCHDNGVNYKI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      9; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match 19.6%; Score 294.5; DB 1; Length 188; Best Local Similarity 43.5%; Pred. No. 8e-21; Matches 57; Conservative 19; Mismatches 46; Indels 9
                                                                                                                                                                                                                                                                                                                               APPLICANT: SUGAR, Tetsuo
APPLICANT: Kojima, Katsuaki
TITLE OF INVENTION: Physiologically Active Protein and
TITLE OF INVENTION: Physiologically Active Protein and
TITLE OF INVENTION: Hematopoietic Stem Cell Growth Agent
NUMBER OF SEQUENCES: 14
CORRESPONDENCE ADDRESS:
ADDRESSEE: Nels T. Lippert, White & Case
STREET: 1155 Avenue of the Americas
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CITY: New York
STATE: New York
COUNTRY: U.S.A.
ZIP: 10036-2787
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
COMPUTER: DATE: PC DOS/MS-DOS
SOFTWARE: PATENTIN Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/142,449B
382 DD--GKTYHVGEQWQKEYLG-AICSCTCFGGQRG 412
```

```
58 SKPEA--EETCFDKYTGNTYRVGDTYERPKDSMIWDCTCIGAGRGRISCTIA-----N 108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             618 CIDGVNSÝKCICSDGWEGTÝCETNINDCSKNPCHNGGTCRDLVNDFFCECKNGWKGKTCH 677
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 678 SRDSOCDEATC--NNGGTCYDEGDTFK------CMC-PAGWEGATCNIARNSSCLPN 725
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             109 RCHEGGQSYKIGDTWRRPHETGGYMLECVCLGNGKGEWTCKPIAEKCFDHA---AGTSYV 165
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      726 PCHNGGTCVVSGDSF-----TCVCKEGWEGP-TCTQNTNDCSPHPCYNSGTC-V 772
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ---TCLGEGSG-RITC---TSRNRC 200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NUCLECTIDE AND PROTEIN SEQUENCES OF THE SERRATE GENE AND METHODS BASED THEREON
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 1193;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       830 QEVTGRPCFISIRVMPDGAKWDDDCNTCQCL---NGK 863
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         201 NDQDTR---TSYRIGDTWSKKDNRGNLLQCICTGNGR 234
                                                                                                                                                                                                                                                                                                                                                   MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
FLING DATE: 06-MAR-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
10.6%; Score 159; DB 3;
Best Local Similarity 26.4%; Pred. No. 1.2e-06;
Matches 73; Conservative 22; Mismatches 88
                      Fleming, Robert J.
Artavanis-Tsakonas, Spyridon
                                                                                                                                                                                                ADDRESSEE: Pennie & Edmonds
STREET: 1155 Avenue of the Americas
CITY: New York
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    166 VGETWEKPYQ-----GWMMVDC----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    : .....crhONE: (212) 790-9090
: TELEFAX: (212) 869-9741/8864
: TELEX: 66.41 PENNIE
: INFORMATION FOR SEQ ID NO: 10:
SEQUENCE CHARACTERISTICS:
TURGTH: 1193 amino
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ish-Horowicz, David
Henrique, Domingos M.P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-09-195-524-10; Sequence 10, Application US/09195524; Patent No. 6703489; GENERAL INFORMATION:
APPLICANT: Henrique, Domingos M., APPLICANT: Henrique, Domingos M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
NAME: Misrock, S. Leslie
REGISTRATION NUMBER: 18,872
REFERENCE/DOCKET NUMBER: 7326.
TELECOMMUNICATION INFORMATION:
                                                                    Mann, Robert S
Gray, Grace E.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       , MOLECULE TYPE: protein US-08-611-729A-10
                                                                                                                                                     NUMBER OF SEQUENCES: 2
CORRESPONDENCE ADDRESS:
ADDRESSEE: Pennie &
                                                                                                                                                                                                                                                                                                                          COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy
                                         APPLICANT: Artavanie
APPLICANT: Mann, RObs
APPLICANT: Gray, Grad
TITLE OF INVENTION: 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       unknown
                                                                                                                                                                                                                                                              3: New York
RY: U.S.A.
10036-2711
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TOPOLOGY:
                                                                                                                                                                                                                                                                                       COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    618 CIDGVNSÝKCICSDGWEGTÝCETNINDCSKNPCHNGGTCRDLVNDFFCECKNGWKGKTCH 677
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SKPEA--EETCFDKYTGNTYRVGDTYERPKDSMIWDCTCIGAGRGRISCTIA-----N 108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RCHEGGQSYKIGDTWRRPHETGGYMLECVCLGNGKGEWTCKPIAEKCFDHA---AGTSYV 165
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    726 PCHNGGTCVVSGDSF-----TCVCKEGWEGP-TCTQNTNDCSPHPCYNSGTC-V 772
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 -----LGNVLVCTCYGGSRGFNCE 57
    APPLICANT: Fleming,
APPLICANT: Artavanis-Tsakonas, John Spilcant: Artavanis-Tsakonas, John Spilcant: Artavanis-Tsakonas, John Spilcant: Applicant: Grace E.; TITLE OF INVENTION: NUCLEOTIDE AND PROTEIN SEQUENCES OF THE ITLE OF INVENTION: SERRATE GENE AND METHODS BASED THEREON NUMBER OF SEQUENCES: 20
CORRESPONDENCE ADDRESS: ADDRESSE: Pennie & Edmonds
STREET: 1155 Avenue of the Americas
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        94;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 1193;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     88; Indels
                                                                                                                                                                                                                                                                                                                          COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compartible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/400,159
FILING DATE: 07-MAR.1995
CLASSIFICATION: 435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                830 QEVTGRPCFTSIRVMPDGAKWDDDCNTCQCL---NGK 863
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       201 NDQDTR---TSYRIGDTWSKKDNRGNLLQCICTGNGR 234
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          10.6%; Score 159; DB 2; 26.4%; Pred. No. 1.2e-06; tive 22; Mismatches 88;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               166 VGETWEKPYQ-----GWMMVDC-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 21 CYDNGKHYQ--INQQWERTY-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 14
20.08-611-729A-10
Sequence 10. Application US/08611729A
Patent No. 6004224
GENERAL INFORMATION:
APPLICANT: 18h-Horowicz, David
APPLICANT: Henrique, Domingos M.P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ATTORNEY/AGENT INFORMATION:
NAME: Misrock, S. Leslie
REGISTRATION NUMBER: 18,872
REFRENCE/DOCKET NUMBER: 7326
TELECOMMUNICATION INFORMATION:
TELEPHONE: (212) 790-9090
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TELEFAX: (212) 869-9741/8864
TELEX: 66141 PENNIE
INFORMATION FOR SEQ ID NO: 10:
SEQUENCE CHARACTERISTICS:
LENGTH: 1193 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
Myat, Anna M
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ; MOLECULE TYPE: protein US-08-400-159-10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity
----hes 73; Conservat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       linear
                                                                                                                                                                                                                                                                                   COUNTRY: USA
ZIP: 10036-2711
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 678
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
```

94;

```
58 SKPEA--EETCFDKYTGNTYRVGDTYERPKDSMIWDCTCIGAGRGRISCTIA-----N 108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            109 RCHEGGQSYKIGDTWRRPHETGGYMLECVCLGNGKGEWTCKPIAEKCFDHA---AGTSYV 165
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      726 PCHNGGTCVVSGDSF-----TCVCKEGWEGP-TCTQNTNDCSPHPCYNSGTC-V 772
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   166 VGETWEKPYQ-----GWMMVDC------TCLGEGSG-RITC---TSRNRC 200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      618 CIDGVNSYKCICSDGWEGTYCETNINDCSKNPCHNGGTCRDLVNDFFCECKNGWKGKTCH 677
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              -----LGNVLVCTCYGGSRGFNCE 57
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 94; Gaps
                  APPLICANT: Myat, Anna M.
APPLICANT: Fleming, Robert J.
APPLICANT: Aravanis-Tsakonas, Spyridon
APPLICANT: Mann, Robert S.
APPLICANT: Mann, Robert S.
APPLICANT: Mann, Robert S.
TITLE OF INVENTION: NUCLEOTIDE AND PROTEIN SEQUENCES OF THE TITLE OF INVENTION: SERRATE GENE AND METHODS BASED THEREON CORRESPONDENCE: 20
CORRESPONDENCE: 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  10.6%; Score 159; DB 4; Length 1193; 26.4%; Pred. No. 1.2e-06; tive 22; Mismatches 88; Indels 9
                                                                                                                                                                                                                                                    STREET: 1125 AVELUE C. CITY: New York
STATE: New York
STATE: New York
COUNTRY: U.S.A.
ZIP: 10036-2711
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/195,524
FILING DATE:
CLASSIFICATION DATA:
APPLICATION NUMBER: US 08/611,729
FILING DATE: 06-MAR-1996
ATTORNEY/AGENT INFORMATION:
NAME: Misrock, S. Leslie
REFERENCE/DOCKET NUMBER: 18,872
REFERENCE/DOCKET NUMBER: 18,872
REFERENCE/DOCKET NUMBER: 1326-037
TELEFAN: (212) 790-9090
TELEFAN: (212) 865-9741/8864
TELEFAN: 66141 PENNIE
INFORMATION FOR SEQ ID NO: 10:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          201 NDODIR---TSYRIGDIWSKKDNRGNLLQCICTGNGR 234
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Search completed: September 30, 2005, 08:58:04 Job time : 34.6978 secs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              21 CYDNGKHYQ--INQQWERTY------
                                                                                                                                                                                                                          ADDRESSEE: Pennie & Edmonds
STREET: 1155 Avenue of the Americas
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   : 1193 amino acids
amino acid
Lewis, Julian H.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local Similarity 26.4%
Matches 73; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MOLECULE TYPE: protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                unknown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-09-195-524-10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Dp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
```





1.6	Compugen Ltd.	
GenCore version 5.1.6	- 2005	
	Copyright (c) 1993	
	Copyr	

OM protein - protein search, using sw model

September 30, 2005, 08:57:20; Search time 197.974 Seconds (without alignments) 549.366 Million cell updates/sec Run on:

US-09-492-971B-15\_COPY\_4\_265 1499 Perfect score:

Title:

1 QAQQMVQPQSPVAVSQSKPG.....TSVQTTSSGSGPFTDVRAAV 262 Sequence:

**BLOSUM62** Scoring table:

1846076 seqs, 415116000 residues Gapop 10.0 , Gapext 0.5 Searched:

1846076

Minimum DB seq length: 0 Maximum DB seq length: 200000000

Total number of hits satisfying chosen parameters:

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

Database :

Published Applications AA:\*

1: /cgn2\_6/ptodata/2/pubpaa/USO7\_PUBCOMB.pep:\*
2: /cgn2\_6/ptodata/2/pubpaa/PCT MEW PUB.pep:\*
4: /cgn2\_6/ptodata/2/pubpaa/PCT MEW PUB.pep:\*
5: /cgn2\_6/ptodata/2/pubpaa/USO6\_NEW PUB.pep:\*
5: /cgn2\_6/ptodata/2/pubpaa/USO6\_NEW PUB.pep:\*
6: /cgn2\_6/ptodata/2/pubpaa/USO8\_NEW PUB.pep:\*
7: /cgn2\_6/ptodata/2/pubpaa/USO8\_NEW PUB.pep:\*
8: /cgn2\_6/ptodata/2/pubpaa/USO8\_NEW PUB.pep:\*
9: /cgn2\_6/ptodata/2/pubpaa/USO8\_PUBCOMB.pep:\*
11: /cgn2\_6/ptodata/2/pubpaa/USO8\_PUBCOMB.pep:\*
11: /cgn2\_6/ptodata/2/pubpaa/USO9\_NEW PUB.pep:\*
11: /cgn2\_6/ptodata/2/pubpaa/USO9\_NEW PUB.pep:\*
13: /cgn2\_6/ptodata/2/pubpaa/USO9\_NEW PUB.pep:\*
14: /cgn2\_6/ptodata/2/pubpaa/USO9\_NEW PUB.pep:\*
15: /cgn2\_6/ptodata/2/pubpaa/USO0\_PUBCOMB.pep:\*
16: /cgn2\_6/ptodata/2/pubpaa/USO0\_PUBCOMB.pep:\*
16: /cgn2\_6/ptodata/2/pubpaa/USO0\_PUBCOMB.pep:\*
17: /cgn2\_6/ptodata/2/pubpaa/USO0\_PUBCOMB.pep:\*
18: /cgn2\_6/ptodata/2/pubpaa/USO0\_NEW PUB.pep:\*
19: /cgn2\_6/ptodata/2/pubpaa/USO0\_NEW PUB.pep:\*
19: /cgn2\_6/ptodata/2/pubpaa/USO0\_NEW PUB.pep:\*
21: /cgn2\_6/ptodata/2/pubpaa/USO0\_NEW PUB.pep:\*
22: /cgn2\_6/ptodata/2/pubpaa/USO0\_NEW PUB.pep:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Description	Sequence 64, Appl		Sequence 98, Appl	98	Sequence 677, App	Sequence 677, App	677,	Sequence 52, Appl	Sequence 52, Appl	Sequence 354, App	Sequence 1066, Ap
ព	US-10-171-311-64	US-10-236-031B-70	US-10-374-979-98	US-10-182-936A-98	US-10-477-238A-677	US-10-680-287A-677	US-10-477-173-677	US-10-144-194A-52	US-10-491-566-52	US-10-741-601-354	US-10-741-600-1066
	14	15	15	15	16	16	11	15	16	16	17
% Query Match Length DB	2328	2328	2328	2328	2328	2328	2328	463	463	642	642
% Query Match	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.7	99.7	99.7	99.7
Score	1499	1499	1499	1499	1499	1499	1499	1495	1495	1495	1495
Result No.	П	7	m	4	ß	9	7	<b>6</b> 0	σ	10	11

Sequence 359, App	1072,	Sequence 356, App	Sequence 1069, Ap	Sequence 4, Appli	363	107	104	235	'n		357	366	104	106	101	147	436,	11	Sequence 28, Appl	٦,	360	206	Sequence 32, Appl	101	ednence	-	a	Sequence 4, Appli	Sequence 2, Appli		<b>a</b> )	ce 52634	24
-10-741	-10-741-600-10	-10-741-6	-10-741-600-10	-10-236-392	-10-741-60	-10-	-10-144-194A-1	US-10-360-101-235	US-10-447-161-3	10-734-564-9	10-741-601-3	-10-741-601-36	10-491-566-10	0-741-600-106	10-741-600-107	10-852-335A-14	-10-287-436A-43	10-287-436A-1	-11-040-1	-09-961-4	US-10-741-601-360	-10-788-792-2	-10-618-281-3	-10-741-600-10	-10-868-57	-10-485-758-	US-10-485-758-9	-09-940-235	-10-236-392	-10-279-73	-10-450-76	S-10-450-763-5	US-09-925-302-548
16	17	16	17	15	16	17	15	15	15	16	16	16	16	17	17	17	18	18	20	10	16	16	16	17	17	18	18	10	15	14	18	18	0
657	657	984	984	2220	2296	2296	2355	2355	2355	2355	2355	2355	2355	2355	2355	2355	2355	2355	2355	2386	2386	2386	2386	2386	2386	2386	2386	259	2320	2320	2474	1173	231
99.7	7.66	7.66	99.7	7.66	99.7	7.66	7.66	7.66	99.7	7.66	7.66	7.66	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	7.66	99.7	99.7	99.7	7.66	99.7	99.5	98.7	98.5	97.2	79.5	59.3
1495	1495	1495	1495	1495	1495	1495	1495	1495	1495	1495	1495	1495	1495	1495	1495	1495	1495	1495	1495	1495	1495	1495	1495	1495	1495	1495	1495	1487	4	4	1457	~	888.5
12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	53	30	31	32	33	34	35	36	37	38	39		41	42	43	44	45

## ALIGNMENTS

APPLICANT: Chen, Yan
APPLICANT: Chen, Yan
APPLICANT: Chen, Yanei
APPLICANT: Chen, Xumei
APPLICANT: Chen, Xumei
APPLICANT: Monahan, John
APPLICANT: Monahan, John
APPLICANT: Gantavarapu, Manjula
APPLICANT: Gannavarapu, Manjula
APPLICANT: DENTITOR: DENTITORIOR, KITS, AND METHODS FOR
TITLE OF INVENTION: NOWEL GENES, COMPOSITIONS, KITS, AND THERAPY
TITLE OF INVENTION: OF CERVICAL CANCER
TITLE OF INVENTION: OF CERVICAL CANCER
TITLE OF INVENTION: OF CERVICAL CANCER
TILING DATE: 2001-06-13
PRIOR FILING DATE: 2001-06-13 Sequence 64, Application US/10171311; Publication No. US20030087270A1; GENERAL INFORMATION: APPLICANT: Schlegel, Robert

Query Match

ORGANISM: Homo sapiens US-10-171-311-64

100.0%; Score 1499; DB 14; Length 2328;

```
RESULT 3
US-10-374-979-98
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        245
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     125 DTWRRPHETGGYMLECVCLGNGKGEWTCKPIAEKCFDHAAGTSYVVGETWEKPYQGWMV 184
                                                                                                                                                                                                                                                             240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               EABETCFDKYTGNTYRVGDTYERPKDSMIWDCTCIGAGRGRISCTIANRCHEGGGSYKIG 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   65 BAEETCFDKYTGNTYRVGDTYERPKDSMIWDCTCIGAGRGRISCTIANRCHEGGQSYKIG 124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DIWRRPHETGGYMLECVCLGNGKGEWICKPIAEKCFDHAAGISYVVGETWEKPYQGWMMY 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DCTCLGEGSGRITCTSRNRCNDQDTRTSYRIGDTWSKKDNRGNLLQCICTGNGRGEWKCE 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DCTCLGEGSGRITCTSRNRCNDQDTRTSYRIGDTWSKKDNRGNLLQCICTGNGRGEWKCE 244
                                                                                                                                                                                                             DIWRRPHETGGYMLECVCLGNGKGEWTCKPJAEKCFDHAAGTSYVVGETWEKPYOGWMW 184
                                                                                                                                                                                                                                                                               DCTCLGEGSGRITCTSRNRCNDQDTRTSYRIGDTWSKKDNRGNLLQCICTGNGRGEWKCE 244
                                                                                                                        EAEETCFDKYTGNTYRVGDTYERPKDSMIWDCTCIGAGRGRISCTIANRCHEGGQSYKIG 120
                                                                                                                                               65 EAEETCFDKYTGNTYRVGDTYERPKDSMIWDCTCIGAGRGRISCTIANRCHEGGQSYKIG 124
                                                                                                                                                                                           DTWRRPHETGGYMLECVCLGNGKGEWTCKPIAEKCFDHAAGTSYVVGETWEKPYQGWMWV 180
                                                     9
                                                                                      64
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             5 QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYGGSRGFNCESKP 64
                                                                         QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYGGSRGFNCESKP
                                                                                                                                                                                                                                                             DCTCLGEGSGRITCTSRNRCNDQDTRTSYRIGDTWSKKDNRGNLLQCICTGNGRGEWKCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYGGSRGFNCESKP
                                                     1 QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYGGSRGFNCESKP
                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 2328;
                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0; Indels
                   Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 70, Application US/10236031B
; Publication No. US20030219760A1
; GENERAL INFORMATION:
APPLICANT: Gordon, Gavin J.
APPLICANT: Gullans, Steven R.
APPLICANT: Gullans, Steven R.
TITLE OF INVENTION: Diagnostic and Prognostic Tests
TITLE OF INVENTION: Diagnostic and Prognostic CURRENT PILIGATION NUMBER: US/10/236,031B
CURRENT FILING DATE: 2002-09-05
; PRIOR FILING DATE: 2001-09-05
; RIGH APPLICATION NUMBER: US 60/407,431
; WUMBER OF SEQ ID NOS: 102
; SOFTWARE: Patentin version 3.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        100.0%; Score 1499; DB 15;
100.0%; Pred. No. 7.9e-130;
live 0; Mismatches 0;
; Pred. No. 7.9e-130; 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RHTSVQTTSSGSGPFTDVRAAV 266
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RHTSVQTTSSGSGPFTDVRAAV 262
                                                                                                                                                                                                                                                                                                                                  RHTSVQTTSSGSGPFTDVRAAV 262
   100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match 100.
Best Local Similarity 100.
Matches 262; Conservative
   Best Local Similarity 100.
Matches 262; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ; ORGANISM: Homo sapiens
US-10-236-031B-70
                                                                                                                                                                                                                                                                                                                                                                                                                                        US-10-236-031B-70
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          241 ]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  61
                                                                                                                                                                                                                                                                                                                                  241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         245
                                                                                                                          61
                                                                                                                                                                                           121
                                                                                                                                                                                                                             125
                                                                                                                                                                                                                                                                                              185
                                                                                                                                                                                                                                                               181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ð
                                                                                  g
                                                                                                                                                 a
                                                                                                                                                                                                                      d
                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                        δ
                                                                                                                                                                              ð
                                                                                                                                                                                                                                                           8
                                                                                                                                                                                                                                                                                                                                                         g
```

```
APPLICANT: Anisowicz, Anthony
APPLICANT: Anisowicz, Anthony
APPLICANT: Bhat. Bheem
APPLICANT: Bhat. Bheem
APPLICANT: Banganez, Veronique
APPLICANT: Banganez, Veronique
APPLICANT: Taworsky, Paul
APPLICANT: Yaworsky, Paul
APPLICANT: Yaworsky, Paul
TITLE OF INVENTION: Reagents and Method for Modulating DKK-Mediated Interactions
FILE REFERENCE: 032796-143
CURRENT APPLICATION NUMBER: DCT/US02/15982
PRIOR APPLICATION NUMBER: US 60/291,311
PRIOR APPLICATION NUMBER: US 60/291,311
PRIOR PILING DATE: 2001-05-17
PRIOR FILING DATE: 2001-05-17
PRIOR PLING DATE: US 60/391,311
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          65 EAEETCPDKYTGNTYRVGDTYERPKDSMIWDCTCIGAGRGRISCTIANRCHEGGQSYKIG 124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   184
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    244
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         61 BABETCFDKYTGNTYRVGDTYERPKDSMIWDCTCIGAGRGRISCTIANRCHEGGQSYKIG 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DIWRRPHEIGGYMLECVCLGNGKGEWICKPIAEKCFDHAAGISYVVGEIWEKPYQGWMMV 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  64
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             5 QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYGGSRGFNCESKP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYGGSRGFNCESKP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DCTCLGEGSGRITCTSRNRCNDQDTRISYRIGDTWSKKDNRGNLLQCICTGNGRGEWKCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match 100.0%; Score 1499; DB 15; Length 2328; Best Local Similarity 100.0%; Pred. No. 7.9e-130; Matches 262; Conservative 0; Mismatches 0; Indels 0;
                                                                      GENERAL INCREMENTION:

APPLICANT: JOHN P. CARVIlli et al.

TITLE OF INVERTION: THE HIGH BONE MASS GENE OF 11q13.3

FILLE REFERENCE: 032796-021

FILLE REFERENCE: 032796-021

CURRENT APPLICATION NUMBER: US/10/374,979

CURRENT PILING DATE: 2003-03-04

PRIOR FILLING DATE: 2000-04-05

PRIOR APPLICATION NUMBER: US 09/543,771

PRIOR FILING DATE: 2000-04-05

PRIOR FILING DATE: 12000-04-05

PRIOR FILING DATE: 12000-04-05

PRIOR FILING DATE: 12000-04-05

PRIOR FILING DATE: 12000-04-05

PRIOR FILING DATE: 1999-01-13

PRIOR FILING DATE: 1998-01-13

PRIOR FILING DATE: 1998-01-13

PRIOR FILING DATE: 1998-10-23

NUMBER OF SEQ ID NOS: 109

SEQ ID NO 98
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              241 RHTSVQTTSSGSGPFTDVRAAV 262
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ; Sequence 98, Application US/10182936A; Publication No. US20040038860A1; GENERAL INFORMATION:
Sequence 98, Application US/10374979
Publication No. US20030219793A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ; ORGANISM: Homo sapiens
US-10-374-979-98
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 4
US-10-182-936A-98
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LENGTH: 2328
```

```
g
                                셤
                                                                         à
                                                                                                                                          à
                                                                                                                                                                          셤
                                                                                                                                                                                                            ð
                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ð
                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                  EAEETCFDKYTGNTYRVGDTYERPKDSMIWDCTCIGAGRGRISCTIANRCHEGGQSYKIG 120
                                                                                                                                                                                                                                                                                                                                                    DTWRRPHETGGYMLECVCLGNGKGEWTCKPLAEKCFDHAAGTSYVVGETWEKPYQGWMMV 180
                                                                                                                                                                                                                                                                                                                                                                                                                        DCTCLGEGSGRITCTSRNRCNDQDTRTSYRIGDTWSKKDNRGNLLQCICTGNGRGEWKCE 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             64
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYGGSRGFNCESKP 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQMERTYLGNVLVCTCYGGGSRGFNCESKP 64
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 677, Application US/10477238A

Publication No. US20040221326A1

SEGNERAL INFORMATION:
APPLICANT: Babij, Philip
APPLICANT: Babij, Philip
APPLICANT: Babij, Philip
APPLICANT: Bodine, Peter Van Nest
ITILE OF INVENTION: Transgenic Animal Model of Bone Mass Modulation
ITILE REFERENCE: 212
CURRENT APPLICATION NUMBER: US/10/477,238A
CURRENT APPLICATION NUMBER: US 60/290,071

PRIOR APPLICATION NUMBER: US 60/291,311
PRIOR APPLICATION NUMBER: US 60/291,311
PRIOR APPLICATION NUMBER: US 60/291,311
PRIOR PILING DATE: 2001-05-17
PRIOR PILING DATE: 2002-02-01
PRIOR FILING DATE: 2002-02-01
PRIOR FILING DATE: 2002-02-01
PRIOR FILING DATE: 2002-02-01
PRIOR PILING DATE: 2002-03-04

PRIOR FILING DATE: 2002-03-04

PRIOR APPLICATION NUMBER: US 60/361,293

PRIOR PLING DATE: 2002-03-04

NUMBER OF SEQ ID NOS: 812

SOFTWARE: FastSEQ for Windows Version 4.0
                                                                                                                                                                                                                                                                                  5 QAQQWVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYGGSRGFNCESKP
                                                                                                                                                                                                                                                              1 QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYGGSRGFNCESKP
                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                ö
                                                                                                                                                                                          Length 2328;
                                                                                                                                                                                                                              0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                        100.0%; Score 1499; DB 15;
100.0%; Pred. No. 7.9e-130;
ive 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      100.0%; Score 1499; DB 16;
100.0%; Pred. No. 7.9e-130;
tive 0; Mismatches 0;
PRIOR FILING DATE: 2002-02-01
PRIOR APPLICATION NUMBER: US 60/361,293
PRIOR FILING DATE: 2002-03-04
NUMBER OF SEQ ID NOS: 216
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 98
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           241 RHTSVQTTSSGSGPFTDVRAAV 262
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            245 RHTSVQTTSSGSGPFTDVRAAV 266
                                                                                                                                                                                                          Best Local Similarity 100. Matches 262; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        262; Conservative
                                                                                                                        TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US-10-477-238A-677
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US-10-477-238A-677
                                                                                                                                          ; ORGANISM: HOMC
US-10-182-936A-98
                                                                                                        LENGTH: 2328
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2328
                                                                                                                                                                                                                                                                                                                                 19
                                                                                                                                                                                                                                                                                                                                                                   9
                                                                                                                                                                                                                                                                                                                                                                                                     121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local {
                                                                                                                                                                                            Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Matches
                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                          a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                               ð
                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                           8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8
```

```
184
                                                                                                                                                                                                                          240
                                                                                                              180
                                                                                                                                                                                                                                                        185 DCTCLGEGSGRITCTSRNRCNDQDTRTSYRIGDTWSKKDNRGNLLQCICTGNGRGEWKCE 244
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         61 EAEETCFDKYTGNTYRVGDTYERPKDSMIWDCTCIGAGRGRISCTIANRCHEGGQSYKIG 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EAEETCFDKYTGNTYRVGDTYERPKDSMIWDCTCIGAGRGRISCTIANRCHEGGQSYKIG 124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DIWRRPHETGGYMLECVCLGNGKGEWTCKPIAEKCFDHAAGTSYVVGETWEKPYQGWMMV 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         125 DTWRRPHETGGYMLECVCLGNGKGEWTCKPIAEKCFDHAAGTSYVVGETWEKPYQGWMWV 184
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               185 DCTCLGEGSGRITCTSRNRCNDQDTRTSYRIGDTWSKKDNRGNLLQCICTGNGRGEWKCE 244
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   64
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 677, Application US/10680287A

| Delication No. US20040244069A1
| GENERAL INFORMATION:
| APPLICANT: Babij, Philip
| TITLE REFERENCE: 032796-179
| FILE REFERENCE: 032796-179
| FILE REFERENCE: 032796-179
| FILE REFERENCE: 0303-10-08
| FRIOR APPLICATION NUMBER: US/10/680,287A
| CURRENT APPLICATION NUMBER: US 60/290,071
| PRIOR FILING DATE: 2001-05-11
| PRIOR FILING DATE: 2001-05-11
| PRIOR FILING DATE: 2001-05-17
| PRIOR FILING DATE: 2001-06-17
| PRIOR FILING DATE: 2002-02-01
| PRIOR FILING DATE: 2002-02-01
| PRIOR FILING DATE: 2002-03-04
| PRIOR FILING DATE: 2002-03-04
| NUMBER OF SEQ ID NOS: 812
| SEQTIMARE: FastSEQ for Windows Version 4.0
| SEQ ID NO 677
                                                                                                                                            125 DIWRRPHETGGYMLECVCLGNGKGEWTCKPIAEKCFDHAAGTSYVVGETWEKPYQGWMMV
61 BAEETCFDKYTGNTYRVGDTYERPKDSMIWDCTCIGAGRGRISCTIANRCHEGGQSYKIG
                                               65 EAERICFDKYTGNTYRVGDTYERPKDSMIWDCTCIGAGRGRISCTIANRCHEGGQSYKIG
                                                                                                                                                                                                                          DCTCLGEGSGRITCTSRNRCNDQDTRTSYRIGDTWSKKDNRGNLLQCICTGNGRGEWKCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        QAQQMYQPQSPVAVSQSKPGCYDNGKHYQINQQMERTYLGNYLVCTCYGGSRGFNCESKP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DCTCLGEGSGRITCTSRNRCNDQDTRTSYRIGDTWSKKDNRGNLLQCICTGNGRGEWKCE
                                                                                                           DTWRRPHETGGYMLECVCLGNGKGEWTCKPIAEKCFDHAAGTSYVVGETWEKPYQGWMMV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYGGSRGFNCESKP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         100.0%; Score 1499; DB 16; Length 2328; 100.0%; Pred. No. 7.9e-130;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ;
;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0; Mismatches
                                                                                                                                                                                                                                                                                                                                         241 RHTSVQTTSSGSGPFTDVRAAV 262
                                                                                                                                                                                                                                                                                                                                                                            245 RHTSVQTTSSGSPFTDVRAAV 266
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RHTSVQTTSSGSGPFTDVRAAV 262
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RHISVOTISSGSGPFIDVRAAV 266
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Best Local Similarity 100.0
Matches 262; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-10-680-287A-677
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-10-680-287A-677
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 245
                                                                                                           121
                                                                                                                                                                                                                          181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
```

```
US-10-144-194A-52
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US-10-491-566-52
                                                                                                                                                                                                                                                                                                                                                                                                                                                        241
                                                                                                                                                                                                                                               128
                                                                                                                                                                                                                                                                                          121
                                                                                                                                                                                                                                                                                                                                 188
                                                                                                                                                                                                                                                                                                                                                                       181
                                        Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              δ
                                                                                                                                                                                                    ð
                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                      ద
                                                                                                                                                                                                                                                                                                                                                                     ò
        WS-10-477-173-677

WS-10-477-173-677

Sequence 677, Application US/10477173

Publication No. US20050070699A1

Publication No. US20050070699A1

APPLICANT: GENERAL INFORMATION:

APPLICANT: Allen, Kristina M.

APPLICANT: Morales, Arturo J.

APPLICANT: Morales, Arturo J.

APPLICANT: Graham, James R.

APPLICANT: Graham, James R.

APPLICANT: Graham, James R.

APPLICANT: Liu, Wei

TITLE OF INVENTION: HBM Variants that Modulate Bone Mass and Lipid Levels

FILE REPRENCE: 032796-135

CURRENT FILING DATE: 2001-05-11-10

PRIOR PELING DATE: 2001-05-17

PRIOR PELING DATE: 2001-05-17

PRIOR FILING DATE: 2001-05-17

PRIOR FILING DATE: 2001-05-17

PRIOR FILING DATE: 2001-05-17

PRIOR FILING DATE: 2002-02-04

PRIOR FILING DATE: 2002-03-04

PRIOR FILING DATE: 2002-03-04

PRIOR FILING DATE: 2002-03-04
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DTWRRPHETGGYMLECVCLGNGKGEWTCKPIAEKCFDHAAGTSYVVGETWEKPYQGWMV 184
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DCTCLGEGSGRITCTSRNRCNDQDTRTSYRIGDTWSKKDNRGNLLQCICTGNGRGEWKCE 244
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                EAEETCFDKYTGNTYRVGDTYERPKDSMIWDCTCIGAGRGRISCTIANRCHEGGQSYKIG 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   EARETCEDKYTGNIYRVGDIYERPKDSMIWDCICIGAGRGRISCTIANRCHEGGOSYKIG 124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DTWRRPHETGGYMLECVCLGNGKGEWTCKPIAEKCFDHAAGTSYVVGETWEKPYQGWMMV 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DCTCLGEGSGRITCTSRNRCNDQDTRTSYRIGDTWSKKDNRGNLLQCICTGNGRGEWKCE 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     64
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      5 QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQMERTYLGHVLVCTCYGGSRGFNCESKP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYGGSRGFNCESKP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             tch 100.0%; Score 1499; DB 17; Length 2328; al Similarity 100.0%; Pred. No. 7.9e-130; 262; Conservative 0; Mismatches 0; Indels 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 8

US-10-144-194A-52

Sequence 52, Application US/10144194A

Publication No. US20030215809A1

GENERAL INFORMATION:
APPLICANT: OriGene Technologies Inc
TITLE OF INVENTION: Regulated Breast Cancer Genes
FILE REFERENCE: 3U 103 R1

CURRENT APPLICATION NUMBER: US/10/144,194A

CURRENT FILING DATE: 2002-06-12

NUMBER OF SEQ ID NOS: 114

SOFTWARE: PatentIn version 3.0

SEQ ID NO 52

TENGRAL 10 NO 52
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NUMBER OF SEQ ID NOS: 1086
SOFTWARE: FastSEQ for Windows Version 4.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RHISVQTISSGSGPFIDVRAAV 266
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RHTSVQTTSSGSGPFTDVRAAV 262
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ; ORGANISM: Homo sapiens
US-10-477-173-677
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity
Matches 262; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQ ID NO 677
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         65
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      245
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
```

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        127
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         247
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    307
                                                                                                                                      127
                                                                                                                                                                                      61 BABETCFDKYTGNTYRVGDTYERPKDSMIWDCTCIGAGRGRISCTIANRCHEGGQSYKIG 120
                                                                                                                                                                                                              DIWRRPHEIGGYMLECVCLGNGKGEWICKPIAEKCFDHAAGISYVVGETWEKPYQGWMMV 180
                                                                                                                                                                                                                                                                                                                            247
                                                                                                                                                                                                                                                                                                                                                                                                  248 DCTCLGEGSGRITCTSRNRCNDQDTRTSYRIGDTWSKKDNRGNLLQCICTGNGRGEWKCE 307
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   128 EAEETCFDKYTGNTYRVGDTYERPKDSMIWDCTCIGAGRGRISCTIANRCHEGGQSYKIG 187
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     68 QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNALVCTCYGGSRGFNCESKP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        248 DCTCLGEGSGRITCTSRNRCNDQDTRTSYRIGDTWSKKDNRGNLLQCICTGNGRGEWKCE
                                                                                                                   68 QAQQWVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNALVCTCYGGSRGFNCESKP
                                                                                                                                                                                                                                                                                                           DCTCLGEGSGRITCTSRNRCNDQDTRTSYRIGDTWSKKDNRGNLLQCICTGNGRGEWKCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   61 EAEETCFDKYTGNTYRVGDTYERPKDSMIWDCTCIGAGRGRISCTIANRCHEGGQSYKIG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                121 DIWRRPHEIGGYMLECVCLGNGKGEWICKPIAEKCFDHAAGISYVVGEIWEKPYQGWMMV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         181 DCTCLGEGSGRITCTSRNRCNDQDTRTSYRIGDTWSKKDNRGNLLQCICTGNGRGEWKCE
                                                                                             1 QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYGGSRGFNCESKP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYGGSRGFNCESKP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 .
0
                                                  ö
    Length 463;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 463;
                                               IndelB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indels
Score 1495; DB 15;
Pred. No. 3e-130;
0; Mismatches 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match 99.7%; Score 1495; DB 16; Best Local Similarity 99.6%; Pred. No. 3e-130; Matches 261; Conservative 0; Mismatches 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 52, Application US/10491566
GENERAL INFORMATION:
FILE TILE OF INVENTION:
CURRENT PAPLICANT: 30 103 R1
CURRENT PAPLICANTION Regulated Breast Cancer Gen
FILE REFERENCE: 3U 103 R1
CURRENT PAPLICANTION NUMBER: US/10/491,566
CURRENT FILING DATE: 2004-05
NUMBER OF SEQ ID NOS: 148
SOFTWARE: PATENTIN VERSION 3.1
SEQ ID NO 52
LENGTH: 463
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RHTSVQTTSSGSGPFTDVRAAV 262
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          308 RHTSVQTTSSGSGPFTDVRAAV 329
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  241 RHTSVQTTSSGSGPFTDVRAAV 262
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               308 RHTSVQTTSSGSGPFTDVRAAV 329
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 10
US-10-741-601-354
; Sequence 354, Application US/10741601
99.78;
                          Best Local Similaria,
Matches 261; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              , ORGANISM: Homo sapiens
US-10-491-566-52
```

```
US-10-741-600-1072

Sequence 1072, Application US/10741600

Sequence 1072, Application US/10741600

Publication No. US20050026169A1

GENERAL INFORMATION:

APPLICANT: CARGILL, Michele et al.

TITLE OF INVENTION: MYCARDIAL INFARCTION, METHODS OF DETECTION AND USES THEREOF

TITLE OF INVENTION: WORDER: US/10/741,600

CURRENT APPLICATION NUMBER: US/10/741,600

CURRENT PILING DATE: 2003-12-22

NUMBER OF SEQ ID NOS: 73997

SOFTWARE: PastSEQ for Windows Version 4.0

SEQ ID NO 1072
                                                               EAEETCFDKYTGNTYRVGDTYBRPKDSMIWDCTC1GAGRGRISCT1ANRCHEGGGSYKIG 151
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         181 DCTCLGEGSGRITCTSRNRCNDQDTRTSYRIGDTWSKKDNRGNLLQCICTGNGRGEWKCE 240
  DIWRRPHETGGYMLECVCLGNGKGEWTCKPIAEKCFDHAAGTSYVVGETWEKPYQGWMMV 211
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EAEETCFDKYTGNTYRVGDTYERPKDSMIWDCTCIGAGRGRISCTIANRCHEGGQSYKIG 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DTWRRPHETGGYMLECVCLGNGKGEWTCKPIAEKCFDHAAGTSYVVGETWEKPYQGWMMV 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            32 QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNALVCTCYGGSRGFNCESKP 91
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQMERTYLGNVLVCTCYGGSRGFNCESKP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0; Gaps
                                                                                                                                                                                                                                                                                 Sequence 359, Application US/10741601
Publication No. US20040166519A1
GENERAL INFORMATION:
GENERAL INFORMATION:
TITLE OF INVENTION: GENETIC POLYMORPHISMS ASSOCIATED WITH
TITLE OF INVENTION: STENOSIS, METHODS OF DETECTION AND USES THEREOF
FILE REPERENCE: CLO01500
CURRENT APPLICATION NUMBER: US/10/741,601
CURRENT PILING DATE: 2003-12-22
NUMBER OF SEQ ID NOS: 26415
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 359
LENGTH: 657
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 657;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 1495; DB 16;
Pred. No. 4.5e-130;
0; Mismatches 1;
                                                                                                                                                  241 RHTSVQTTSSGSGPFTDVRAAV 262
                                                                                                                                                                        241 RHTSVQTTSSGSGPFTDVRAAV 262
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity 99.6%;
Matches 261; Conservative (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ; ORGANISM: Homo sapiens
US-10-741-601-359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                               US-10-741-601-359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             152
                            152
                                                                                                                                                                                         272
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         92
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             212
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TYPE: PRT
                                                                                                  요
                                                                                                                                              ઠે
                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       a
                            8 à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 1066, Application US/10741600

Sequence 1066, Application US/10741600

Publication No. US20050026169A1

GENERAL INFORMATION:

APPLICANT: CARGILL, Michele et al.

TITLE OF INVENTION: GENETIC POLYMORPHISMS ASSOCIATED WITH

TITLE OF INVENTION: MYOCARDIAL INPARCTION, METHODS OF DETECTION AND USES THEREOF

FILIE REPRESENCE: C1001499

CURRENT APPLICATION NUMBER: US/10/741,600

CURRENT FILING DATE: 2003-12-22

NUMBER OF SEQ ID NOS: 73997

SEQ ID NO 1066

LENGTH: 642
                                                                                                                                                                                                                                                                                                                                                                                     °
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                EAEETCFDKYTGNTYRVGDTYERPKDSMIWDCTCIGAGRGRISCTIANRCHEGGQSYKIG 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      92 EAEETCFDKYTGNTYRVGDTYERPKDSMIWDCTCIGAGRGRISCTIANRCHEGGGSYKIG 151
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DTWRRPHETGGYMLECVCLGNGKGEWTCKPIAEKCFDHAAGTSYVVGETWEKPYQGWMWV 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DCTCLGEGSGRITCTSRNRCNDQDTRTSYRIGDTWSKKDNRGNLLQCICTGNGRGEWKCE 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DCTCLGEGSGRITCTSRNRCNDQDTRTSYRIGDTWSKKDNRGNLLQCICTGNGRGEWKCE 271
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       EAEETCFDKYTGNTYRVGDTYERPKDSMIWDCTCIGAGRGRISCTIANRCHEGGQSYKIG 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DTWRRPHETGGYMLECVCLGNGKGEWTCKPIAEKCFDHAAGTSYVVGETWEKPYQGWMMV 211
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EAEETCFDKYTGNTYRVGDTYERPKDSMIWDCTCIGAGRGRISCTIANRCHEGGQSYKIG 151
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      121 DTWRRPHETGGYMLECVCLGNGKGEWTCKPIAEKCFDHAAGTSYVVGETWEKPYQGWMWV 180
                                                                                                                                                                                                                                                                                                                                                                                                                               1 QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYGGSRGFNCESKP 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  32 QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNALVCTCYGGSRGFNCESKP 91
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           32 QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNALVCTCYGGSRGFNCESKP 91
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYGGSRGFNCESKP
                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
Publication No. US20040166519A1
GENERAL INFORMATION:
APPLICANT: CARGILL, Michele et al.
TITLE OF INVENTION: GENERIC POLYMORPHISMS ASSOCIATED WITH
TITLE OF INVENTION: STENOSIS, METHODS OF DETECTION AND USES THEREOF
FILE REFERENCE: CL001500
CURRENT APPLICATION NUMBER: US/10/741,601
CURRENT FILING DATE: 2003-12-22
NUMBER OF SEQ ID NOS: 26415
SOFTWARE: EastSEQ for Windows Version 4.0
SEQ ID NO 354
                                                                                                                                                                                                                                                                                                                                                                                     ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                            Length 642;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               tch al Similarity 99.7%; Score 1495; DB 17; Length 642; al Similarity 99.6%; Pred. No. 4.4e-130; 261; Conservative 0; Mismatches 1; Indels 0
                                                                                                                                                                                                                                                                                                                                                                                   Indels
                                                                                                                                                                                                                                                                                                                                        tch 99.7%; Score 1495; DB 16; al Similarity 99.6%; Pred. No. 4.4e-130; 261; Conservative 0; Mismatches 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RHTSVQTTSSGSGPFTDVRAAV 293
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RHTSVQTTSSGSGPFTDVRAAV 262
                                                                                                                                                                                                                                                         ; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-741-601-354
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-741-600-1066
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 11
US-10-741-600-1066
                                                                                                                                                                                                                                 LENGTH: 642
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local S:
Matches 261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           212
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       61
                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        152
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  181
                                                                                                                                                                                                                                                                                                                                                                                 Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                             ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
```

Š

g

```
셤
                                                                                                                                                                                                                                                                                                                                                                                                                                         a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠ
                                                                                                                                                                                                                                                                                                                                                                                                            à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                          DCTCLGEGSGRITCTSRNRCNDQDTRTSYRIGDTWSKKDNRGNLLQCICTGNGRGEWKCE 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DTWRRPHETGGYMLECVCLGNGKGEWTCKPIAEKCFDHAAGTSYVVGETWEKPYQGWMMV 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DCTCLGEGSGRITCTSRNRCNDQDTRTSYRIGDTWSKKDNRGNLLQCICTGNGRGEWKCE 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      EAEETCFDKYTGNTYRVGDTYERPXDSMIWDCTCIGAGRGRISCTIANRCHEGGQSYKIG 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DCTCLGEGSGRITCTSRNRCNDQDTRTSYRIGDTWSKKDNRGNLLQCICTGNGRGEWKCE 271
                                                                                                                                                              EAEETCFDKYTGNTYRVGDTYERPKDSMIWDCTCIGAGRGRISCTIANRCHEGGQSYKIG 120
                                                                                                                                                                                EAEETCFDKYTGNTYRVGDTYERPKDSMIWDCTCIGAGRGRISCTIANRCHEGGGSYKIG 151
                                                                                                                                                                                                                             DIWRRPHETGGYMLECVCLGNGKGEWTCKPIAEKCFDHAAGTSYVVGETWEKPYQGWMMV 180
                                                                                                                                                                                                                                                   91
                                                                                                                             91
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      32 QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQMERTYLGNALVCTCYGGSRGFNCESKP
                                                                                                                32 QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNALVCTCYGGSRGFNCESKP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYGGSRGFNCESKP
                                                                                               1 QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYGGSRGFNCESKP
                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 356, Application US/10741601

Publication No. US20040166519A1

GENERAL INPOWNATION:
TITLE OF INVENTION: GENETIC POLYMORPHISMS ASSOCIATED WITH
CURRENT APPLICATION NUMBER: US/10/741,601
CURRENT FILING DATE: 2003-12-22
NUMBER OF SEQ ID NOS: 26415
SOFTWARE: FRALSEQ for Windows Version 4.0
SEQ ID NO 356
LENGTH: 984
                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 1495; DB 16; Length 984;
Pred. No. 7.1e-130;
0; Mismatches 1; Indels 0
                            99.7%; Score 1495; DB 17; Length 657; 99.6%; Pred. No. 4.5e-130; ive 0; Mismatches 1; Indels 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RHTSVQTTSSGSGPFTDVRAAV 262
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RHISVQTISSGSGPFIDVRAAV 262
                                                                                                                                                                                                                                                                                                                                                                               99.7%;
                                               Best Local Similarity 99.6
Matches 261; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ; ORGANISM: Homo sapiens
US-10-741-601-356
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 15
US-10-741-600-1069
JS-10-741-600-1072
                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-10-741-601-356
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      261;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local S:
Matches 261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        241
                                                                                                                                                               61
                                                                                                                                                                                              92
                                                                                                                                                                                                                                                             152
                                                                                                                                                                                                                                                                                             181
                                                                                                                                                                                                                                                                                                                              212
                                                                                                                                                                                                                                                                                                                                                              241
                                                                                                                                                                                                                                                                                                                                                                                           272
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        92
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       152
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       212
                                                                                                                                                                                                                              121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Q
                                                                                                                                                                                                                                                                                                                          ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             D
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                             엄
                                                                                                                                                              ò
                                                                                                                                                                                       g
                                                                                                                                                                                                                                                    q
                                                                                                                                                                                                                                                                                     Ś
                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                           8
```

```
Sequence 1069, Application US/10741600
Publication No. US200S0026169A1
GENERAL INFORMATION:
APPLICANT: CARGILL, Michele et al.
TITLE OF INVENTION: MYCCARDIAL INFARCTION, METHODS OF DETECTION AND USES THEREOF FILE REPERENCE: CL001499
FULE REPERENCE: CL001499
CURRENT APPLICATION NUMBER: US/10/741,600
CURRENT FILING DATE: 2003-12-22
NUMBER OF SEQ ID NOS: 73997
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 1069
LENGTH: 984
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   61 BABETCFDKYTGNTYRVGDTYERPKDSMIWDCTCIGAGRGRISCTIANRCHEGGQSYKIG 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    92 BAEETCFDKYTGNTYRVGDTYERPKDSMIWDCTCIGAGRGRISCTIANRCHEGGGSYKIG 151
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       271
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DTWRRPHETGGYMLECVCLGNGKGEWTCKPIAEKCFDHAAGTSYVVGETWEKPYQGWMMV 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  181 DCTCLGEGSGRITCTSRNRCNDQDTRTSYRIGDTWSKKDNRGNLLQCICTGNGRGEWKCE 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               91
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                12 QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNALVCTCYGGSRGFNCESKP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      152 DTWRRPHETGGYMLECVCLGNGKGEWTCKPIAEKCFDHAAGTSYVVGETWEKPYQGWMMV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             212 DCTCLGEGSGRITCTSRNRCNDQDTRTSYRIGDTWSKKDNRGNLLQCICTGNGRGEWKCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 QAQQMVQPQSPVAVSQSKPGCYDNGKHYQINQQWERTYLGNVLVCTCYGGSRGFNCESKP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 984;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 1495; DB 17;
Pred. No. 7.1e-130;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
99.7%; Score 1495; L
Best Local Similarity 99.6%; Pred. No. 7.1e
Matches 261; Conservative 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Search completed: September 30, 2005, 09:21:21 Job time : 198.974 secs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  241 RHTSVQTTSSGSGPFTDVRAAV 262
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     272 RHTSVQTTSSGSGPFTDVRAAV
                                                                                                                                                                                                                                                                                                                                                                                                        ; ORGANISM: Homo sapiens
US-10-741-600-1069
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         121
                                                                                                                                                                                                                                                                                                                                                                                    TYPE: PRT
```